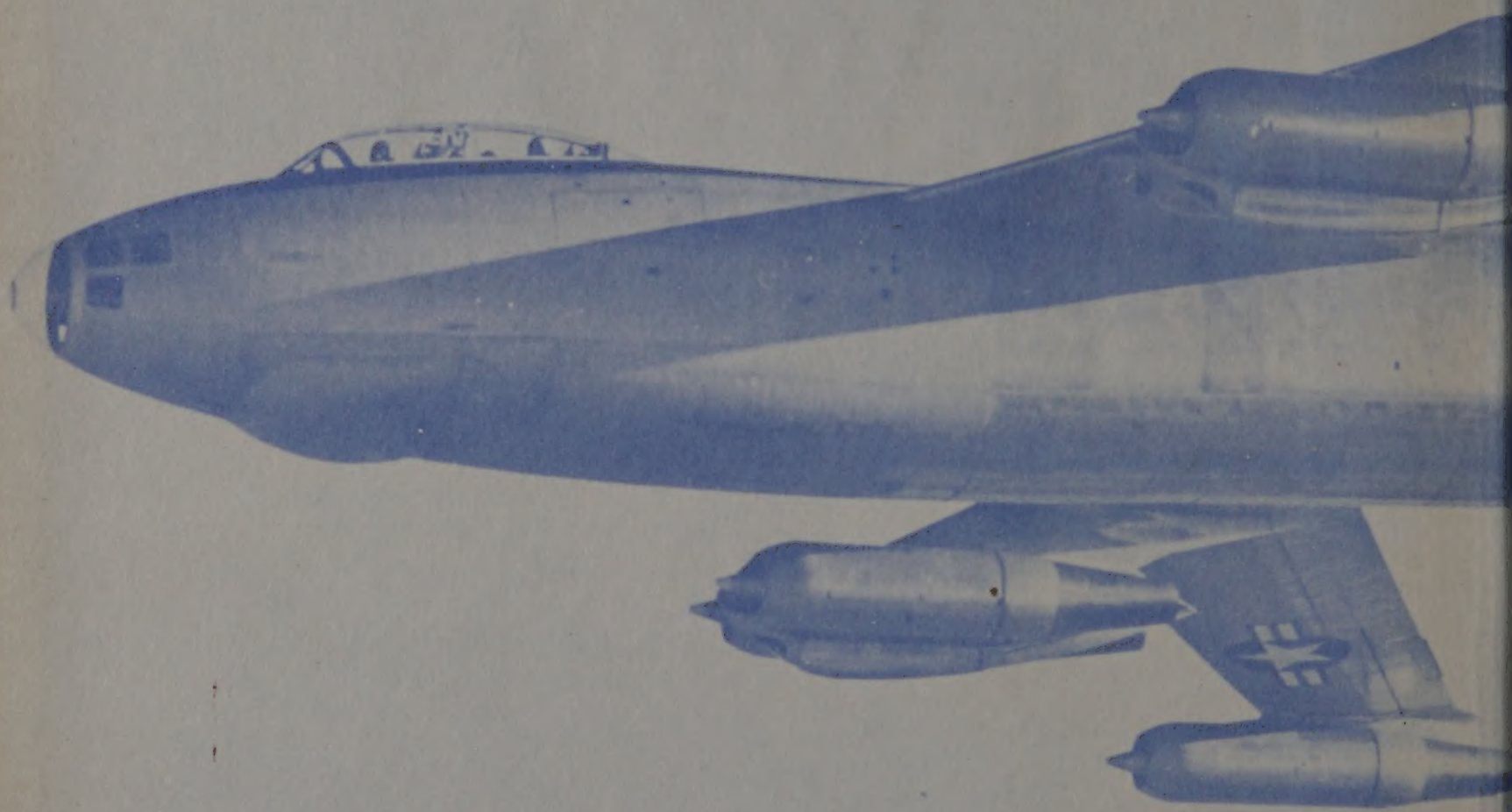




The
1951

INTEGRATOR

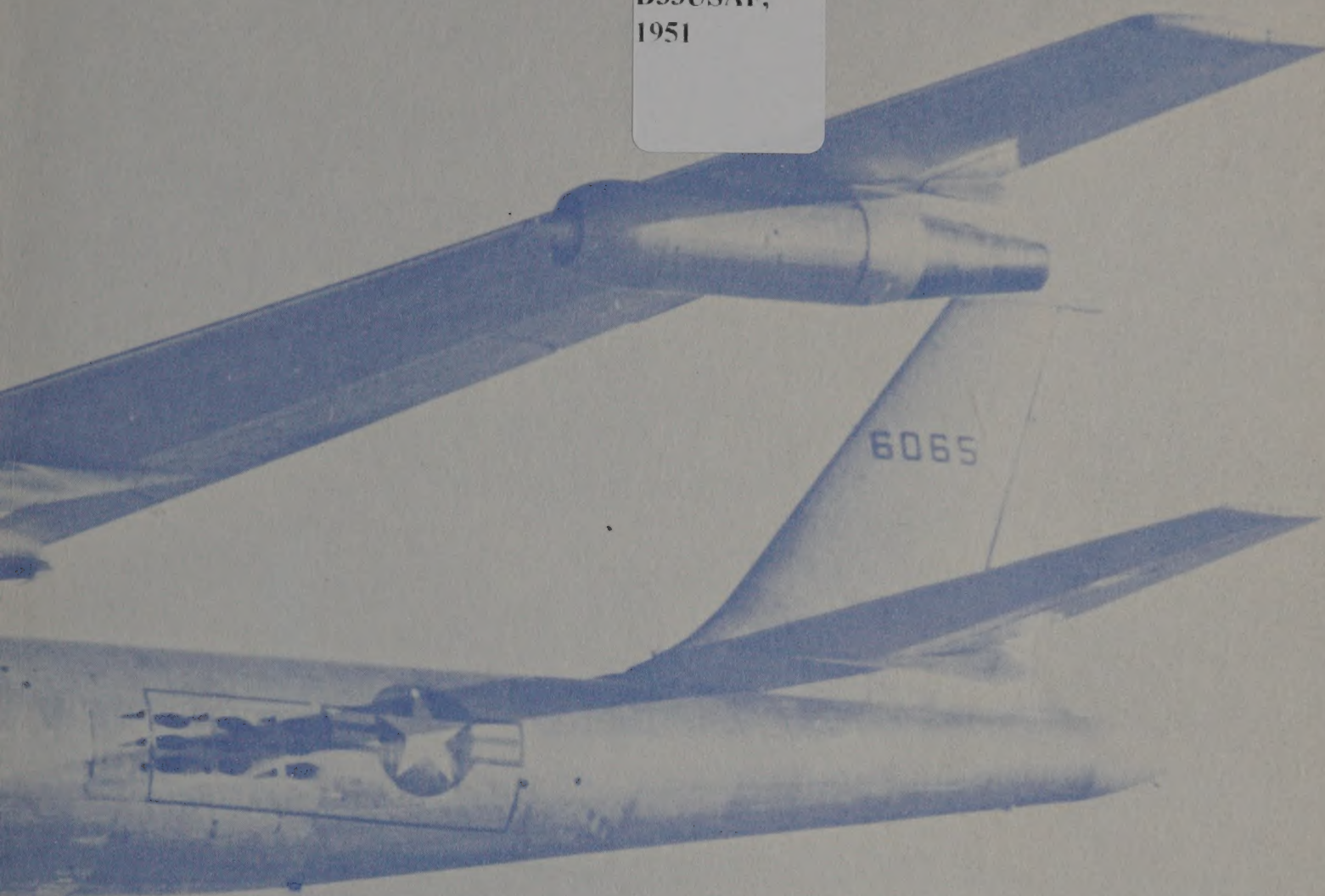
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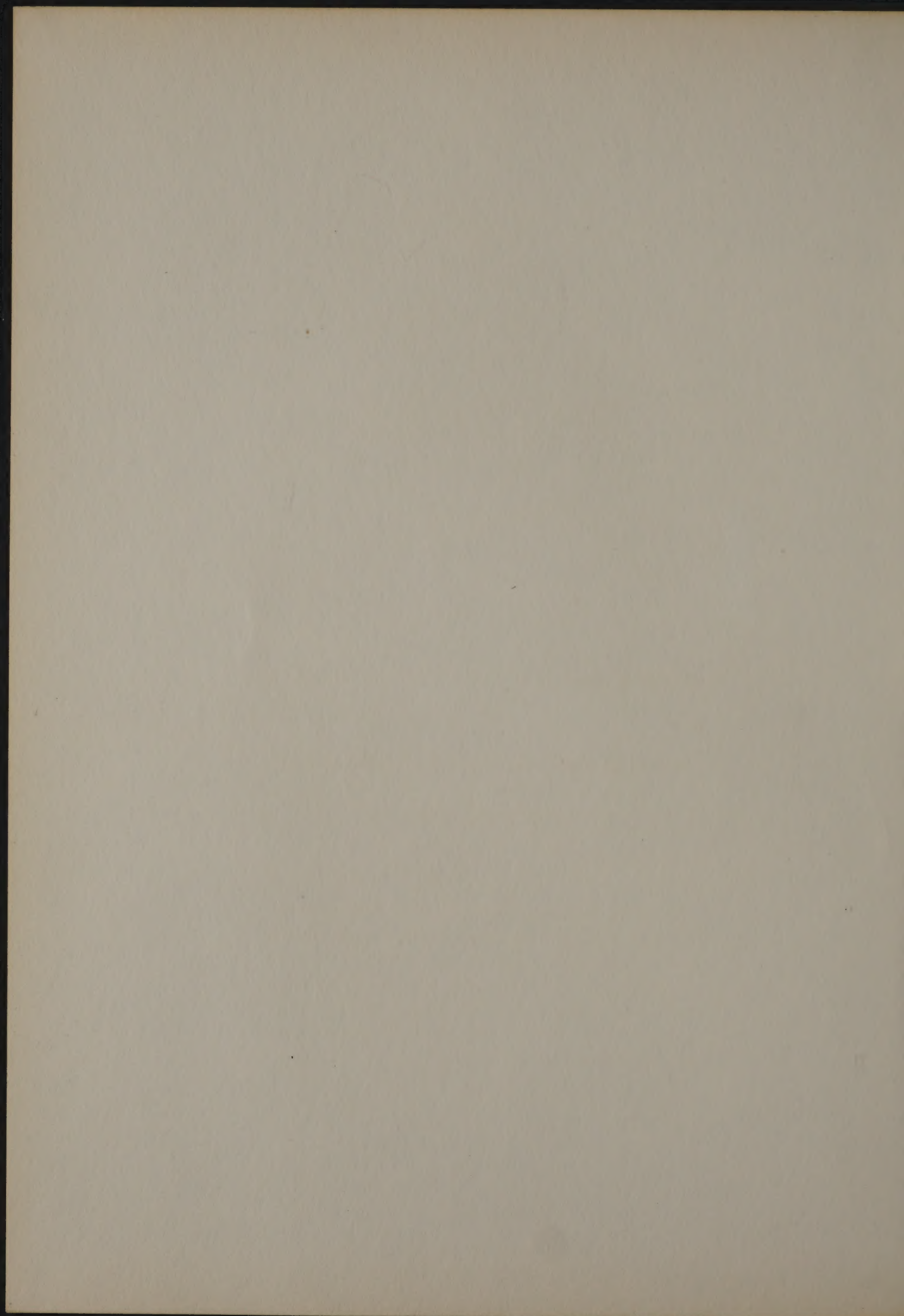


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U. S. AIR FORCE INSTITUTE OF TECHNOLOGY

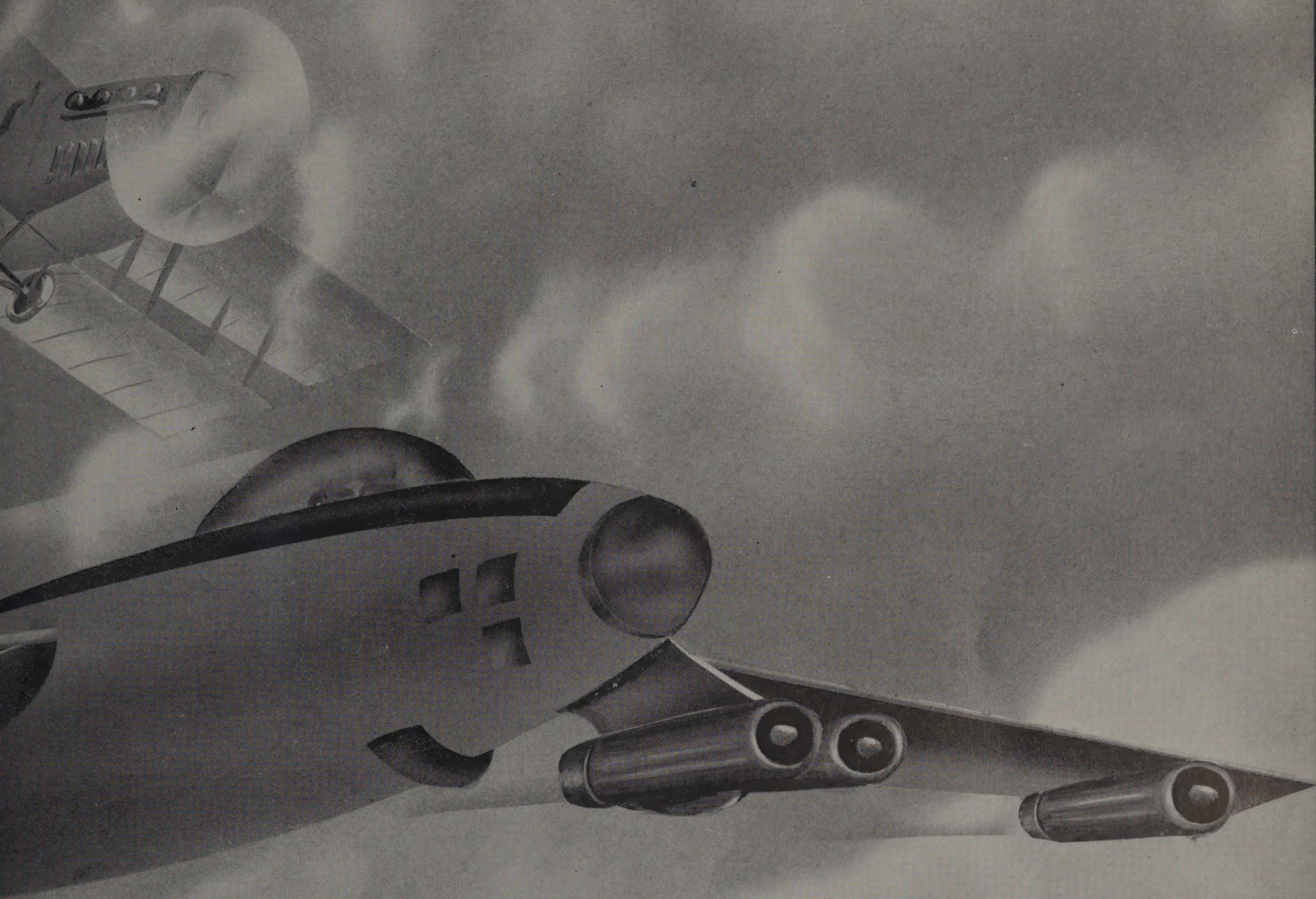
WRIGHT-PATTERSON AIR FORCE BASE

DAYTON, OHIO

"The Integrator" is an unofficial publication of the students of the United States Air Force Institute of Technology and does not necessarily reflect official policy or opinions of the Air Force. All expenses of publication were underwritten and paid for out of non-governmental funds, secured solely by and for the students of the above mentioned Institute.



Willis B. Burriss



A vast gulf exists between the pioneering air arm of the Curtiss "Jenny" days and the jet powered Air Force of today. This gulf is a measure of the results which can be accomplished through the union of science and industry. In another sense, it is evidence of the nation's need for developed brain power to wisely administer and use this potent air weapon.

Constantly aware of this need, the Air Force maintains a far-flung and diversified educational system. An integral part of this system is the USAF Institute of Technology.



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FOREWORD

This yearbook is presented to the graduating class of 1951. It is hoped that the contents of this book will serve to foster memories and associations in the future that began here at the Institute of Technology.

The USAF Institute of Technology has many renowned alumni and we are proud to join that illustrious group. Many of the alumni have attained high positions in the United States Air Force in the fields of Science and Administration. There is no doubt that some of the members of the graduating class of 1951 will also attain high positions in the United States Air Force in these same fields.

The knowledge acquired by the graduates will undoubtedly benefit each, personally. In addition this knowledge will also enable the graduates to serve the United States Air Force and the United States of America better in the grave days ahead. At no time in the short history of the U. S. Air Force has the need for technically and administratively trained officers been more necessary.





DEDICATION

The tragic foreign danger that we now face demands something more firm and inspiring in the American mind than pragmatic acquiescence in things as they are. Communism by pragmatic tests seems to be working efficiently for its evil ends. To confront it, we must look to the conscience of men in the firm faith that conscience can be enlightened by something more than the false deities of happier days. We must reinspect the Natural Law and conform our lives to these basic precepts so that we can preserve our basic "freedoms".

To those who have died and will die that we might enjoy these freedoms, this book is respectfully dedicated.



Nearing Hungnam in the withdrawal of UN Forces from North Korea, these soldiers pass Americans killed by the last Red ambush. (Picture printed by special permission of the Editors of LIFE magazine, TIME INC.)



GENERAL HOYT S. VANDENBERG
*Chief of Staff,
United States Air Force*





GENERAL GEORGE C. KENNEY

Commandant, The Air University





Commandant,

MAJOR GENERAL GRANDISON GARDNER



B.S., Utah State College, 1914; M.S. Aeronautics, Massachusetts Institute of Technology, 1928. In military service since 1917. Assistant Commandant of Air Corps Engineering School (USAFIT predecessor), 1930. Chief, Armament Laboratory, AMC, 1939. Military air observer, England, 1940; Chief of Engineering Section, Materiel Division, Hq, USAF; Commanding General, Air Proving Ground Command, 1942. Member U.S. Strategic Bombing Survey, 1945; Air Comptroller, Hq, USAF, 1946. Special assistant to Secretary of Air Force, 1947; Director of Installations, President of Air Force Base Development Board, 1949. Commandant of USAFIT, June 1950.

MESSAGE FROM THE COMMANDANT

To the Class of 1951:

You will soon leave the USAF Institute of Technology to assume new assignments in an Air Force that holds opportunity for the officer with a good technical background, an Air Force under expansion in an era of great change and advancement.

Today's United States Air Force represents the nation's greatest force for defense, its most vital weapon, its sole means of delivering immediate retaliatory fire in the event of surprise attack. The Air Force is a technical arm, one that embodies the last word in scientific materiel. Its equipment is complicated and requires a higher order of management and administrative ability than ever before demanded of an officer corps.

Recent history indicates that our country will be vastly outnumbered in any future war. Technical superiority, higher calibre materiel and personnel, finer quality across the board in all facets of our military machinery, must be counted on to turn the sheer weight of great numbers. Even if we wished it so, ours could not be a force conceived in the strength of numbers. Our well of manpower is far from bottomless. Our well of brainpower must run much deeper.

For you, individually, these times hold a clear challenge. You cannot let up. The Air Force to which you belong, which you and your contemporaries will one day lead, bids fair to outdistance the man who allows himself to stand still mentally.

A habit of study, a certain regular diet of it, is an essential characteristic of the successful officer. You have been here long enough to form sound study habits—do not drop them altogether, do not let them slowly rust away.

My congratulations go to each of you upon your successful completion of the Institute's exacting curricula. All of you have my best wishes in your new, and subsequent, assignments.

GRANDISON GARDNER
Major General, USAF
Commandant



Deputy Commandant
COLONEL LEIGHTON I. DAVIS

Graduate U.S.M.A., 1935; MS, Massachusetts Institute of Technology, 1941; Air War College, 1950. Instructor and Director of Ground School, U.S.M.A., 1939-43; Engineering Division, AMC, 1943-49; Chief, Armament Laboratory, AMC, 1947; Chief, Office of Air Research, 1949-50; Deputy Commandant, USAFIT, July 1950.

Assistant Commandant

**COLONEL
 ERNEST L. CLOUGH**

Attended Universities of California, Columbia and Georgetown. Graduate of the Adjutant General School, School of Military Government, Command and General Staff School. Service in World War II as DCS, Allied Government of Italy, Chief Commissioner for Sicily, Assistant Military Attache for Italy.



Director

MR. EZRA KOTCHER



Director, USAFIT, 1946

Received B.S., University of California, 1928; M.S.A.E., Michigan, 1937. Senior Professor, Air Corps Engineering School, 1928-41. AAF Officer 1942-46, Engineering Division, AMC: Chief, Pilotless Aircraft Branch; Project Officer Jet Fighters, Special Research Aircraft X-1. Technical Executive, the Air Intelligence Group, FEAF. Member of NACA technical committees on jet propulsion and guided missiles. Chairman, Dayton Chapter of Institute of Aeronautical Sciences, 1950-51.



MEET THE CHALLENGE . . .

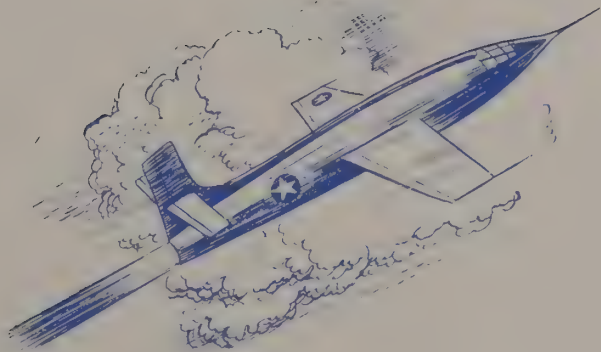
GRAVE challenges face the Air Force in its important role of providing air power supremacy for our nation and the free world. Your training at USAFIT was designed to enhance your ability to help meet these challenges.

Many of you have seen on the wall outside of my office the class pictures of the graduates of the Air Corps Engineering School, the pre-Pearl Harbor forerunner of USAFIT. In the thirteen years of its existence from 1928 to 1941, the number of graduates totaled only 135 officers—less than a single graduating class from USAFIT! It is interesting to note that more than fifty of these graduates became general officers in the Air Force. On behalf of the faculty, I wish to express the hope that in the years to come we will look back and recognize with pride an equally large proportion of USAFIT graduates who have become leaders of the Air Force.

Best wishes and good luck.

Ezra Kotcher

THE Industrial Administration Department, which was organized immediately following World War II, now possesses a faculty of industrial, administrative and technical experts. The responsibility of determining requirements, procuring, and distributing material has grown to a multi-billion dollar a year business for the Air Force in recent years. The training of qualified officers necessary to perform these functions is a principal aim of the department.



FACULTY

*Industrial Administration
Department*



THOMAS F. McMANUS

Professor and Head of Department of Industrial Administration.

Received B.S., in Commerce, Northwestern University, 1925; M.A., 1933; and Ph.D., 1934, State University of Iowa. Assistant in Economics, State University of Iowa; Head of the Department of Economics and Business Administration, College of New Rochelle; Lecturer in Economics, Brooklyn College, N. Y.; Lecturer in Economics, New York University Graduate School of Business Administration; Principal Economist, Office of Price Administration; Lieutenant Commander USNR and Instructor, U.S. Naval Academy; Principal Economist, Division of Business and Industrial Research, Bureau of Internal Revenue; present position since 10 May 1948.

JAMES ROY JACKSON

Professor of Economics.

B.Ped. from Warrensburg State Teachers College, 1916; Ph.B., University of Chicago, 1923; A.M., University of Chicago, 1924; Ph.D., University of Chicago, 1927; Professor: Centenary College, 1921-23; University of Chicago, 1923-26; Evansville College, 1926-28; Head of Department of Finance, St. Louis University, 1928-42; War Service with Air Force, 1942-46; Investment Counselor, 1946-48. USAFIT from 1948.



MAX ASTRACHAN**Professor of Statistics.**

A.B., University of Rochester, 1929; A.M., Brown University, 1930; Ph.D., Brown University, 1935. Professor, Antioch College, to 1948; USAFIT from 1949.

**HAROLD F. KLEEHAMMER****Professor of Industrial Management**

BAeE, University of Detroit, College of Engineering, 1931. Tool Engineer General Motors, 1934 to 1938. Production Engineer, Curtiss-Wright Corporation, 1938-1950. USAFIT Lecturer, 1947, USAFIT from 1950.

**CHARLES LEESE****Associate Professor of Industrial Management**

A.B., Gettysburg College, 1924; A.M., University of Pennsylvania, 1925; Ph.D., University of Pennsylvania, 1929. Professor in Economics and Business Administration: Clarkson College of Technology, 1927-30; Susquehanna University, 1930-37; Center College, 1937-45; James Millekan University, 1945-49; USAFIT from 1949.





LT. COLONEL COLUMBUS E. TOOTLE
Assistant Professor of Industrial
Management.

M.B.A., University of Chicago, 1949. Weather Forecasting Technician, 1939-41. War Service with Air Force from 1941. USAFIT from 1949.



HERBERT L. MYERS, JR.
Assistant Professor of Accounting.

B.S., Ohio State, 1940; M.S.A., Harvard U. Graduate Business School, 1942. Price Analysis Chief, 1942-46. Instructor in Accounting: U. of Dayton, 1947; Wilmington College Extension Center, 1948; USAFIT from 1948.



HENRY E. GLASS
Professor of Business Organization.

B.S., NYU, 1939; Graduate Work, NYU, 1939-42. Instructor, NYU, 1941; OPA Economist, 1942-43; AMC Industrial Planning Section, 1943-46; USAFIT from 1947.

THE GRADUATING CLASS

Two Year Course

This department combines into one unified program four fields of study—engineering, economics, business administration and management, and logistics. The curriculum meets the specialized educational needs of Air Force officers for assignments in such fields as procurement, supply, maintenance, and industrial mobilization planning.

The students have labored long and hard to master the intricacies of Law, Mathematics, Physics, Economics, Accounting, Industrial Management, Procurement, Statistics and many other subjects. Their just reward is the acquisition of knowledge, the ability to think more accurately, and a better understanding of the problems that exist in the United States Air Force.

INDUSTRIAL ADMINISTRATION



GRADUATES



Captain James A. Bailey
714 Brookstown Avenue
Winston Salem, N.C.



Major Arthur L. Biberstein
c/o F. J. Biberstein
Attica, Kansas



1st Lieutenant Buford B. Biggs
Poughkeepsie, Arkansas



1st Lieutenant Donald R. Bissell
712 Roselle Avenue
Akron, Ohio

"Bailey"

Baseball, Volleyball

Although he has three "whooping" offspring at home, who ignore his beseechings for quiet, Alan continuously maintained a high scholastic rating due to his adeptness at picking out the "meat" of subject matter. A rabid baseball fan, he was the stalwart pitcher of the section softball team.

"Beeb"

Golf, Bowling

Beeb's mastery of academic material accomplished by a photographic memory will always stand out in the minds of his classmates. His golf scores reflected his academic scores also; namely in the high nineties. Beeb has diligently applied his time and effort to the publication of this yearbook. He will always be a welcome addition whether it be task or sport.

"BB"

Softball

BB formed a stalwart part of the softball team. A serious student with an answer under any situation made him welcome in any class or crowd. A West Point degree made BB a tough scholastic competitor.

"Don"

Golf, Basketball, Television

Don really settled down at AIT after listening to wedding bells in Texas. Unassuming and well liked, his ability to give his all should aid him no end, although it meant a few "charley-horses" while playing Di-Maggio style on the softball diamond.





GRADUATES



Major Seymour Blatt
243 Berkshire Road
Hasbrouck Heights, New Jersey



Major Otto H. Brandau
127 Greenwich Blvd.
San Antonio, Texas



Captain Wendell D. Bundy
445 N. Tuxedo
Stockton, California



Squadron Leader Gordon L. Burness
Wadena, Saskatchewan,
Canada

"Blatt"

In this officer is the essence of application to job and duty. How this available male gets through every Sadie Hawkin's Day we, the more domestically habituated, will never know. Blatt has unerringly utilized his business ability to make this book a success.

"O"

Automobiles, Volleyball, Traveling

Just give "O" his "Home in San Antone" and a good automobile to tinker with and he'll be happy. A family man and hard worker in school, but never too busy to discuss the latest automotive trends. When will cars be jet-propelled, "O"?

"Bundy"

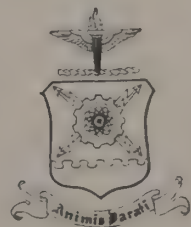
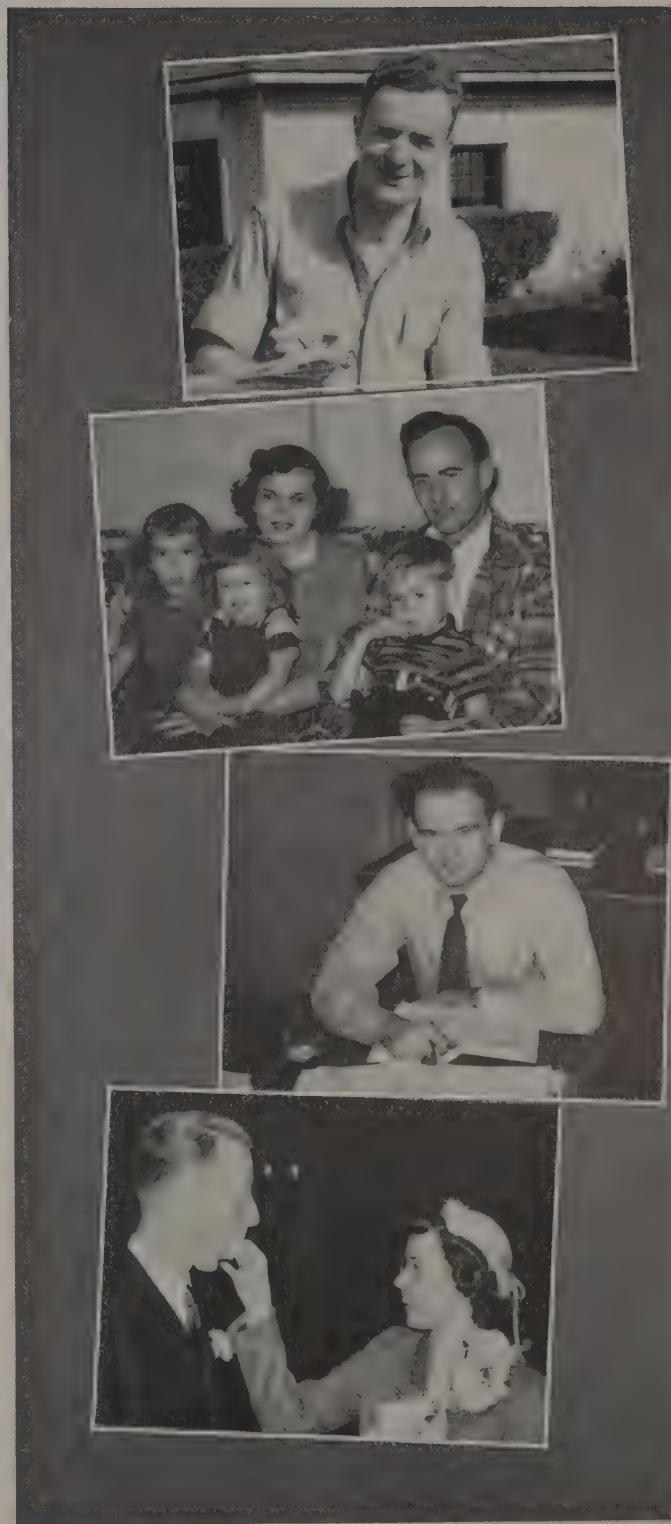
Bowling, Softball, Model Midget Racers

Quiet though he may be, don't under-estimate our boy "Bundy". A prolific man at home and at school, he garnered more than his share of the grades, was the sparkplug of 3L's formidable softball team, and so rumor hath it, was an explosive force in the physics laboratory.

"Gordon"

Golf, Skiing, Tennis

A real soldier and scholar, and a great ambassador, Gordon has developed numerous lasting friendships. His systematic approach to the situation was evident not only in his work at AIT, but also in his continually improving golf game. We will hear more of this excellent officer in the future.





GRADUATES



Lt. Colonel Richard E. Cathcart
504½ W. Boone Street
Marshalltown, Iowa



1st Lieutenant Earl O. Clark, Jr.
Route 4
Temple, Texas



Lt. Colonel Adelbert D. Cross
56 Roseland Terrace
Longmeadow, Massachusetts



Captain Robert B. Crutcher
3554 Shaw Avenue
Cincinnati, Ohio

"Dick"

Golf, Softball, Bowling

Doubling as chaperone and pilot on the West Coast trip, Dick has the distinction of landing a C-47 with his foot in a bucket. In addition to being a catcher of the softball team, he was a member of the bowling team.

"Clark"

Law, Air Installations, Softball

This reincarnation of Judge Bean and the Pecos Kid can galvanize your ear before you know it on any subject from Air Installations to the odds on a Zebra in the Derby—and there won't be much else you'd care to know about any subject once he is finished. All "Little Earl" wants is a sportin' chance and he will take care of the rest.

"Dell"

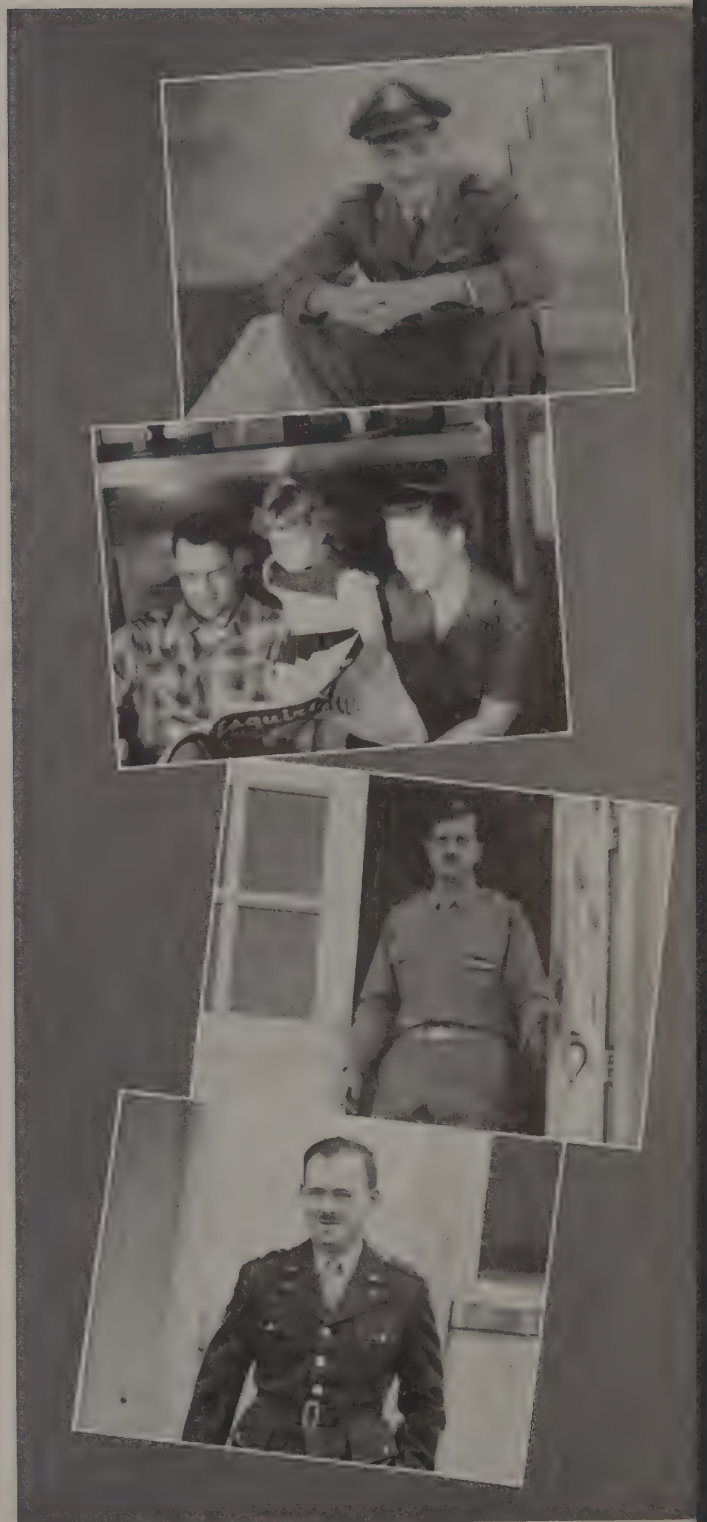
Golf, Bowling, Swimming, Volleyball

Senior officer and as such was saddled with the onerous and thankless task of class leader. His tact and diplomacy made our lot easier. The "Chief" did well in most courses; however, accounting added a lot of strokes to his otherwise fine golf game.

"Bob"

Golf, Card-playing, Volleyball

Taking life easily, Bob's friendly and inquisitive nature has been no small factor in his successful undertakings, studies, golf, and bridge. His mature and practical views promise him much future success, both socially and professionally, in whatever duties he should be assigned.





GRADUATES



Captain Robert L. Dabolt
Irving, New York



Captain Ralph H. Dearey
817 South Verdugo Road
Glendale, California



Major Leo F. Deegan
Moccasin, Montana



Captain David S. Dennis
Chicago, Illinois

"Bob"

Golf, Bowling, School Teacher, Instructor, Pilot

This one-time school teacher and old instructor-pilot has found himself shifted to the receiving end the past two years for a change and has acquitted himself well. Bob swings a mean golf club, and also throws discomfort to opponents of the 2L51 bowlers. Here is a steady man that can always be counted on for a much better than average job under any and all conditions.

"Ralph"

Bowling, Golf, Convertibles

"Love me, love my 88". This versatile little Irishman never appears to be overworked, yet always comes out on top scholastically. A man of varied interests, Ralph likes everything from shuffleboard to television, and is one of the coffee shop's best customers.

"Leo"

Bowling, Poker

Leo once again proves the old adage that "There is no substitute for hard work". This is evidenced by his grades and by his "extra curricular activities" income. There is no doubt that Leo's industry, initiative and intelligence will take him a long way in the Air Force and in the financial field.

"Dave"

Fishing, Bowling, Contract Bridge

Dave's broad background in the social sciences was always a stabilizing factor in class discussion. He was Captain of 3L's bowling team, and is an expert at contract bridge—poker is another story. His outstanding feat was a near perfect calculus test after a struggle he'll long remember.





GRADUATES



Captain Richard L. Eisenbise
Atascadero, California



Captain Mark Farnum, Jr.
Georgiaville, Rhode Island



Captain J. Riley Fowler
New Kensington, Pennsylvania



Captain John W. Gilluly
1705 Dorchester Road
Brooklyn 26, New York

"Dick"

Hunting, Fishing, Bowling

The strong silent type, Dick managed to influence the academic arguments by his serious listening and not by shouting the loudest. Always ready for a hunting or fishing expedition. His quiet, reserved manner proved to be a steadying factor throughout our two years at the Institute.

"Mark"

Baseball, Photography

New England's "Champ", he maintains a consistent Bostonian quiet and calm. His brilliant analytical mind, which solves all questions accurately and promptly, has earned him one of the highest scholastic averages in the class. His humorous, engaging personality combined with his other sterling qualities make him a great asset to the Air Force. He was Treasurer of the Institute of Aeronautical Sciences and section photo editor for the yearbook.

"J"

Carnegie Tech, Bowling, Softball

"J" carried the ball with the finesse of an expert in bowling, softball, and in academic achievement. "J" says if you don't think Pennsylvania is a great state just trace the nation's best football players. Dependability and initiative will keep this man going places.

"Gill"

Softball, Basketball, Brooklyn

"Gill" has made the most of his attendance at the Institute. A diligent student, an active sportsman, and a serious family man, Gill has that easy but dependable nature that a good officer needs. You can always rely on him to do an excellent job whether it be in academics, in the field, or as a staff member of this yearbook.





GRADUATES



Major Charles S. Glenn
c/o Robert Glenn, Sr.
619 N.W. 2nd Avenue
Homestead, Florida



Major Ralph R. Goss
131 Lakeview Terrace
Burlington, Vermont



Captain Reginald A. Herin, Jr.
Jackson, Mississippi



Major Joseph C. Holbrook, Jr.
Royston, Georgia
(Ty Cobb was also born there)

"Charlie"

Florida, Green card, Section leader, Golf, Bowling
This reluctant Rebel finally surrendered and married a girl from Pennsylvania. Florida's ambassador to Pennsylvania has been a large-scale farmer of some renown, a school teacher of parts, a Field Artillery cannoneer, a pilot who likes green-card weather just to "keep his hand in". Isn't given to saying much, but makes it stick when he does open up.

"Jack"

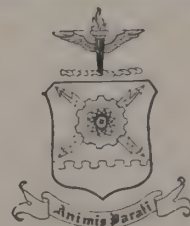
Hunting, Fishing, Swimming
Never rushed, Jack accomplishes more in his quiet manner than most people. Very tactful, he gets to the heart of any problem. We'll always remember his pipe and those snoozes from take-off till landing on every trip by air.

"Buddy"

Softball, Volleyball, Bowling, Hunting
Remembered for his second-hand jokes, arguments in favor of fighters and fighter-pilots, and his unceasing search for "flying saucers". His diligent studying and natural aptitude paid off. Although likely to drain the supply of combs, he will be a great asset to the Service.

"Joe"

Golf, Calisthenics, Baby Sitting
Joe's temperament and understanding of leadership psychology fitted him perfectly as section leader of 3L. A party man supreme, but never to the extent of interfering with the work at hand. Joe is a true "Southern Gentleman" in every sense of the word.





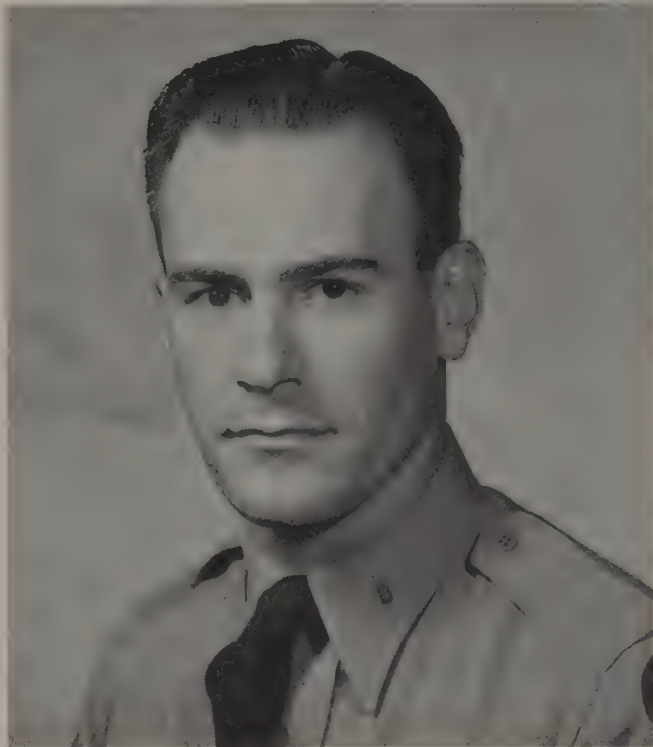
GRADUATES



1st Lieutenant Robert P. Horn
2114 South Delta Street
Rosemead, California



1st Lieutenant Kenneth L. Jackson
Pleasant Hill, Ohio



1st Lieutenant Roger T. Jackson
146 Arnold Avenue
Edgewood 5, Rhode Island



Major Andrew A. Juhasz
23865 Republic Avenue
Ferndale 20, Michigan

"Bob"

One of the "Hot Rock Happy" scooter fiends, Bob's oft quoted comment that "Anybody who volunteers for Korean duty to get out of the Institute is a coward" was more often truth than fiction. He had a bit of a struggle with the scholastic schedule and was a member in good standing of the "Plans boys" but managed to come through with flying colors. He should be a great asset to SAC.

"Ken"

Softball, Basketball, Volleyball

A "product" of Miami University, General Motors Institute, and the Point, his enviable ability of comprehension with little effort enabled Ken to be high on the honor roll and to display his athletic prowess. Starring at softball, his congeniality, pleasing personality and cooperative spirit will carry him a long way.

"Rog"

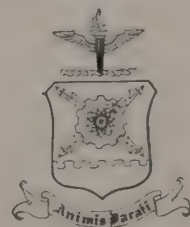
Bowling, Golf, Bridge

A natural born student, Rog was a wizard on final exams. A welcome member of any sports team, and jovial company on any occasion. A class wit and expert on repartee, Rog could even put spark in a statistics class.

"Andy"

Model Airplanes, Golf, Bowling

Andy, the early bird of 3L, is really a bundle of energy. An excellent athlete, neat in appearance, and a family man, he seems to enjoy the finer things in life. Although a hard plugger at his studies he is always ready to "get in the blue".





GRADUATES



Captain Bertram V. Jungemann
Wolsey, South Dakota



Major Albert A. Kurz
437 Hilborn Street
Lodi, California



Captain Alva F. Lett, Jr.
Pickering, Missouri



Major Calvin E. Logan
Route 1 Box 4
Drew, Mississippi

"Bert"

Tennis, Bowling, Audio Amplifiers

Bert, the philosopher of 3L, is always ready to add a bit of down-to-earth thinking and oratory when the instructor leaves a loophole. Almost missed the California trip, but when he joined us later, you could tell it was a boy. An all 'round good fellow, scholar and friend.

"Al"

Volleyball, Golf, Fishing

"Reddy Kilowatt" in disguise, he helped everyone with electricity. Proud of his Kaiser and Weimeraner, he will extoll them as others talk of their children. With long and varied military experience, his ability to think and analyze clearly should push him high up the Air Force ladder.

"Al"

Hunting, Sports, Dogs

Al has the knack of knowing how to listen and observe. His genuine sense of humor is typical of his easy going manner. He staunchly claims that his willowy figure is attributal to his underlying devotion to pickles and hard boiled eggs rather than Hadacol, as supposed.

"Cal"

Mississippi, Wyoming, Softball, Basketball, Golf

Li'l ole Ben Hogan Logan, sports lover, family man, good man on single-engine, friendly cuss, steady plugger. The kind of man you like to have with you in everything. Ole Miss. could use a few more like this lad, so could we.





GRADUATES



Captain Curtis L. Logsdon
211 Lipan Drive
San Angelo, Texas



Captain Earl L. McCabe, Jr.
Conrath, Wisconsin



1st Lieutenant Lowell D. Millisor
804 W. North St.
St. Marys, Ohio



Major Paul C. Murphy
2110 Twentieth Avenue
San Francisco, California

"Curt, Stubby"

Softball, Bowling

Curt was another of the hurlers for the ball club as well as an asset to the bowling and other teams. The sympathies of the class were extended to Curt the night the little enthalpies chased his cat around the house. Always good-natured with a counterpart of seriousness as concerned his studies, this little Texan will not be soon forgotten.

"Mac"

Golf, Bowling, Photography

Mac, the quiet fellow with the subtle sense of humor. He had the card players and kibitzers guessing on the West Coast trip as to whether he was soaking his foot in that fire bucket or raising gold fish. One of our more studious members, he was always ready to give a helping hand to those who needed it and still found time to make the section golf and bowling teams.

"Mike"

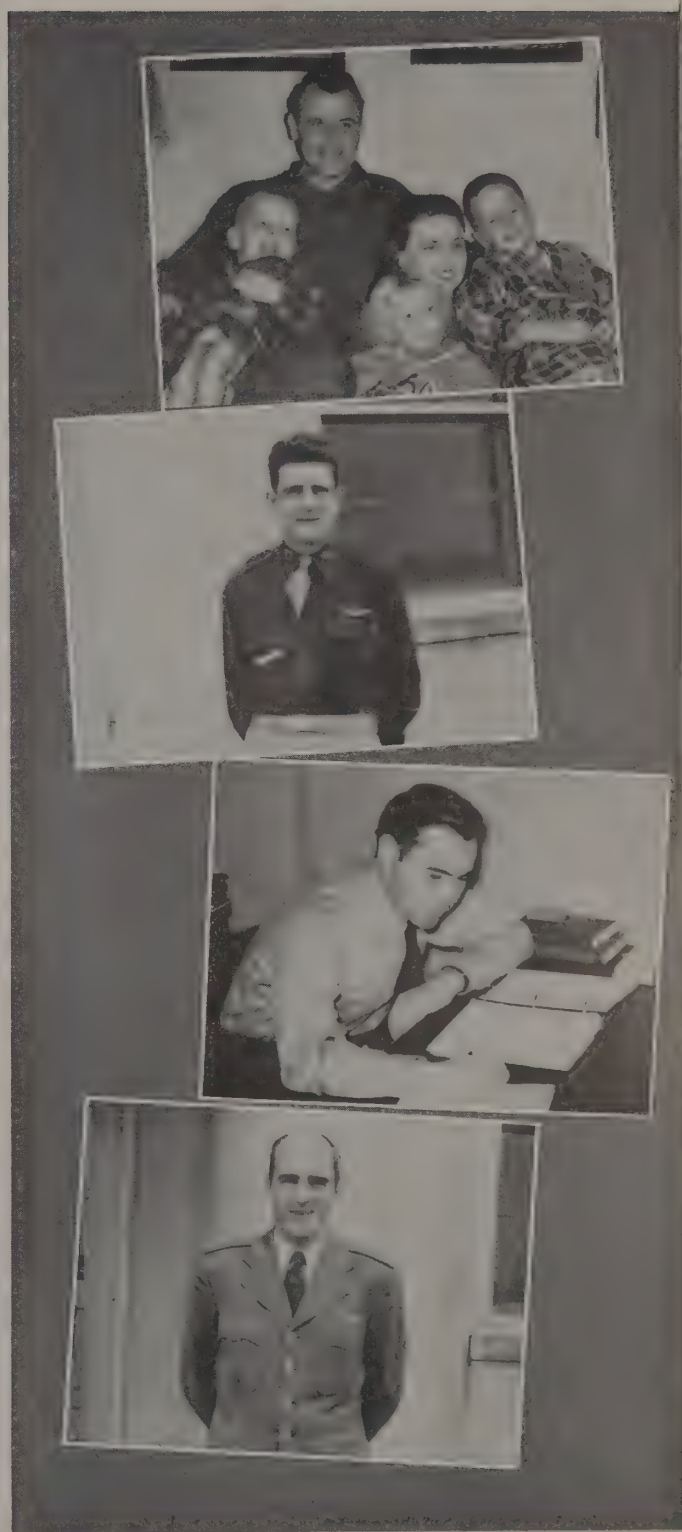
Radio, Convertibles, Hunting

Mike, an earnest student, always looking for the practical application of theory, is a storehouse of information on guns, radios, engines and things mechanical. A reliable man, he's never too busy to lend a hand or engage in a friendly discussion.

"Judge"

Softball, Handball, Golf, Bowling

"Murph"—ready, willing and able to enter a debate on almost any subject. Hails from San Francisco and produced staunch competition in the final struggle for grades. Also won the title of "Judge" for top performance in Business Law. Enjoys all sports.





GRADUATES



Captain Frederick C. Newton
Rockdale, Texas



Major Richard S. Nye
Santa Barbara, California



Major Robert F. Pike
Pottstown, Pennsylvania



Major Edward B. Reed
Honesdale, Pennsylvania

"Newt"

This congenial Texan joined the ranks here in the far north by saying little about the deep South (comparatively). "Newt" always knew the score along the academic line and was always a friendly companion. In spite of buying a new house and landscaping, Newt's honorable academic achievements never wavered.

"Dick"

Bowling, Golf, Photography

Dick's subtle sense of humor and good nature could take the edge off any tense situation. His hidden talent in bowling inspired 3L's second season and due recognition is in order for a certain extra-curricular financial report. A hard worker and friend.

"Bob"

Golf, Swimming

Bob's pleasant grin and good disposition often helped lighten the load at AIT. A top-notch student (with quite a bang in physics lab), he manages to play a good game of golf and finds time to enjoy and appreciate fine arts, especially paintings.

"Ed"

Bowling, Photography, U. of Penn.,
Wharton School of Business

Ed will be remembered as a fellow who delved into every assignment or interest with a concerted effort. His studious energy paid dividends in class honors. Ed's bowling had its ups and downs but his interest never varied. His photographic finesse was an asset to our yearbook.





GRADUATES



Major James S. Ross, Jr.
Arkansas City, Arkansas



1st Lieutenant Clyde W. Sautters
1127 Garfield Avenue
Canton, Ohio



Captain Ned Schramm, Jr.
Mountain City, Tennessee



1st Lieutenant Stuart M. Sharp
403 W. Eldorado Street
Decatur, Illinois

"Jim"

Fishing, Golf, Swimming

Regardless of the circumstances, Jim never changes from day to day. Friendly and cooperative, he is a man of action, a diligent student and sets a fast pace in all his undertakings.

"Clyde"

Volleyball and Softball

Clyde will be remembered as the man who counted every bump and bounce from Dayton to Los Angeles and back. A good student, with a cheerful personality, he will be an asset to any organization. Attention to academics notwithstanding, sports activities have paid off quite well.

"Ned"

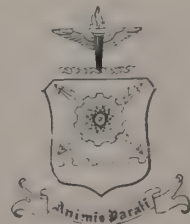
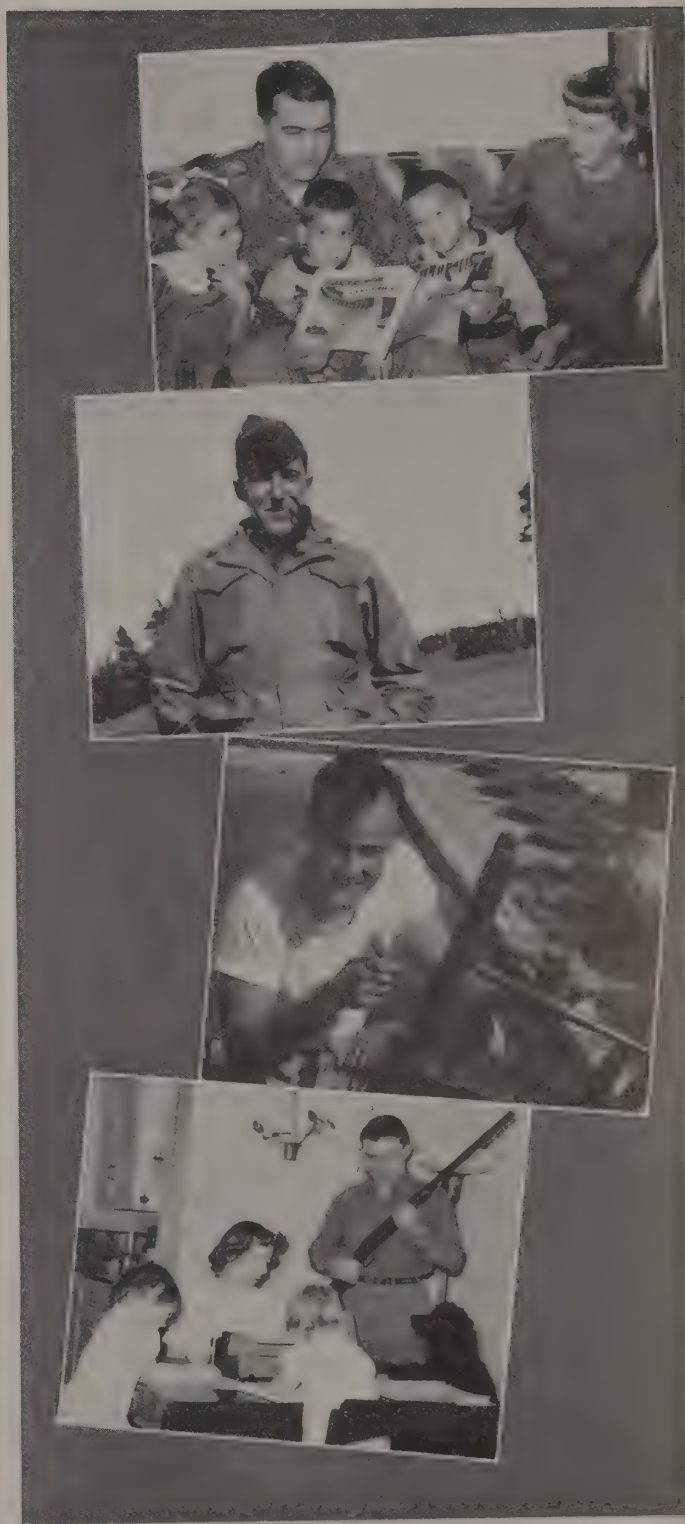
Volleyball

A product of the Point and an example of the adage that "grades are in direct proportion to perspiration". Military, respectful and sincere, he is very studious and has the high grades that go with it. However, Ned managed to take time for many outside activities and sports; among them, Captain of the Volleyball team. We all feel Ned is destined to go far in the Service with his unlimited energy.

"Stew"

Bowling, Softball

Stew captained the section bowling team with an addicted energy which brought the team through in good standing. His earnestness and adaptability make him welcome anytime. Stew's stories concerning innovations on the use of Hadacol would spellbind an audience for hours.





GRADUATES



1st Lieutenant Benjamin F. Smith
15 Shady Avenue
Clarion, Pennsylvania



Captain Peter Sowa, Jr.
284 Jefferson Avenue
Sharon, Pennsylvania



1st Lieutenant Albert F. Stumpe
3634 Besuden Court
Cincinnati, Ohio



Captain Victor K. Syphers
2641 Van Buren Avenue
Ogden, Utah

"Smitty"

All sports, Flying, Photography

One of the most productive and "reproductive" students at AIT, Smitty thrives on hard work. His legal opinion in accounting benefited all, and his professional baseball experience put new vigor in the athletic program.

"Pete"

Volleyball, Softball, Bowling

Pete will be remembered as a hard worker who came here to get the most out of the academic courses offered. He was an asset to his section in volleyball, softball, and bowling competition. Pete's application to study will not be excelled.

"Bert"

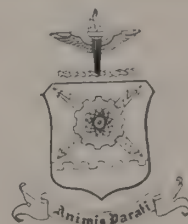
Volleyball, Softball

Quiet, reserved and well-thought-of by all. A tenacious student, he excelled in accounting and helped many of us over the rough spots. Seldom aroused, he was a stabilizing influence. His many pleasing traits should serve him well in his future assignments in the Air Force.

"Vic"

Bowling, Volleyball, Swimming

Vic has a sterling character marked by a strong sense of duty. He is firm in his convictions, and will argue till the cows come home. 3L made the West Coast trip completely at ease knowing that Vic was at the controls.





GRADUATES



1st Lieutenant John W. Talley
Pontotoc, Mississippi



Captain Vernon J. Taylor
Route 3 Box 385
Ogden, Utah



Major John S. Turton
47 Baker Street
Berea, Ohio



Captain Herman A. Waggener, Jr.
953 Arbor Vista
Jackson, Mississippi

"Johnny"

Bowling, Softball, Volleyball

Johnny is an active member of any group whether it be academic or extra-curricular. His affable nature and boundless energy (after coffee hour) combined to make his studies here seem easy.

"Vern"

Baseball, Volleyball, Basketball

"Vern" led many lively discussions for the section betterment. His grades have climbed consistently higher because of his persistent efforts. With four children, he is one of our leading family men. Outdoors man, congenial, he will receive our warmest greetings whenever we meet in the future.

"John"

Photography, Bowling

John has been 1L51's popular section leader for two years. Although academics are neither his easiest nor most enjoyable activity, he has shown unusual determination and perseverance in his quest for knowledge. A superior pilot, who is extremely conscientious, John should have a bright future—the Air Force profiting therefrom.

"Wag"

Photography, Music, Member of Bd. of Governors

Wag is proof that good things come in small packages. This ambassador of good will from Ole Mississippi has a pleasant "Good mawnin'" for everyone. A good-hearted lad who has kept a good scholastic standing, but wasn't too busy to direct a couple of church choirs.





GRADUATES



Major James D. Walsh
3146 Fourth Street S.E.
Minneapolis, Minnesota



Captain Lloyd M. N. Wenzel
Seguin, Texas



Major Robert W. West



Captain Donald E. Whipple
Princeton, Illinois

"Walsh"

Golf, Bowling, Handball, Hunting, Fishing

This industrious officer carried that innate sense of honesty and fair play into each activity whether it be school or sport. A long hitch in that famous rest camp, Stalagluft #3 in Sagen, Germany during the war didn't change Walsh's robust nature.

"Lloyd"

Bowling, Photography, Automobiles

Texas ought to be proud of this smiling native son. As dynamic as his Olds 88, Lloyd has a myriad of friends. The P-38 is still his first love. His ability at shuffleboard is unquestioned, and that bowling hook is a miracle to behold.

"Pappy"

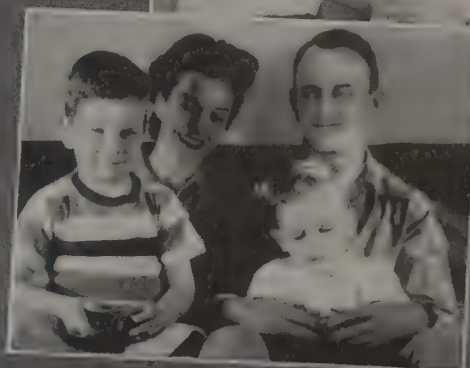
New York, Rocket 88, Golf, Blackpool, Softball

This New York Irishman plays golf like a Scotchman born on St. Andrews heather. This maintenance specialist with a hitch alongside the State Department "a la Paris" is desirous of employing the diplomatic approach and technique in all matters.

"Whip, Daddy"

Softball, Volleyball, Golf

Whip was the Sal Maglie of 2L51 in the softball league; in addition he worked hard on the volleyball teams and long to be remembered are the stars which came to his eyes when a good golf match was mentioned. His willingness to help others, his personality, and his determination to master the academic studies will not easily be forgotten.





GRADUATES



Captain James H. White
Lake City, Arkansas



Captain Harold F. Wienberg
15 Beekman Street
Bloomfield, New Jersey



Captain Owen J. Williams
238 Park Avenue
Wilkes-Barre, Pennsylvania



Major Everett S. Zweifel
Weatherford, Oklahoma

"Jim"

Golf, Poker, Bowling

Jim came to us from Fort Worth—his incessant cigar smoking reminiscent of his admiration for SAC's General LeMay. He is a quiet, studious, likable fellow except on the golf course, where he explodes both physically and verbally. His grades are in inverse proportion to the golf season, the honor roll one semester, the semifinals the next semester.

"Bud"

Handball, Photography, Bowling

"Hey, want to fly"? That's the usual greeting from "Bud" whose perpetual grin grows wider with every foot of altitude. Since text books and instructors were no obstacle to this "Jet Dreamer", he found no difficulty in keeping his social undertakings on the same level as his superior academic standing. He was secretary of the Institute of Aeronautical Sciences.

"Willie"

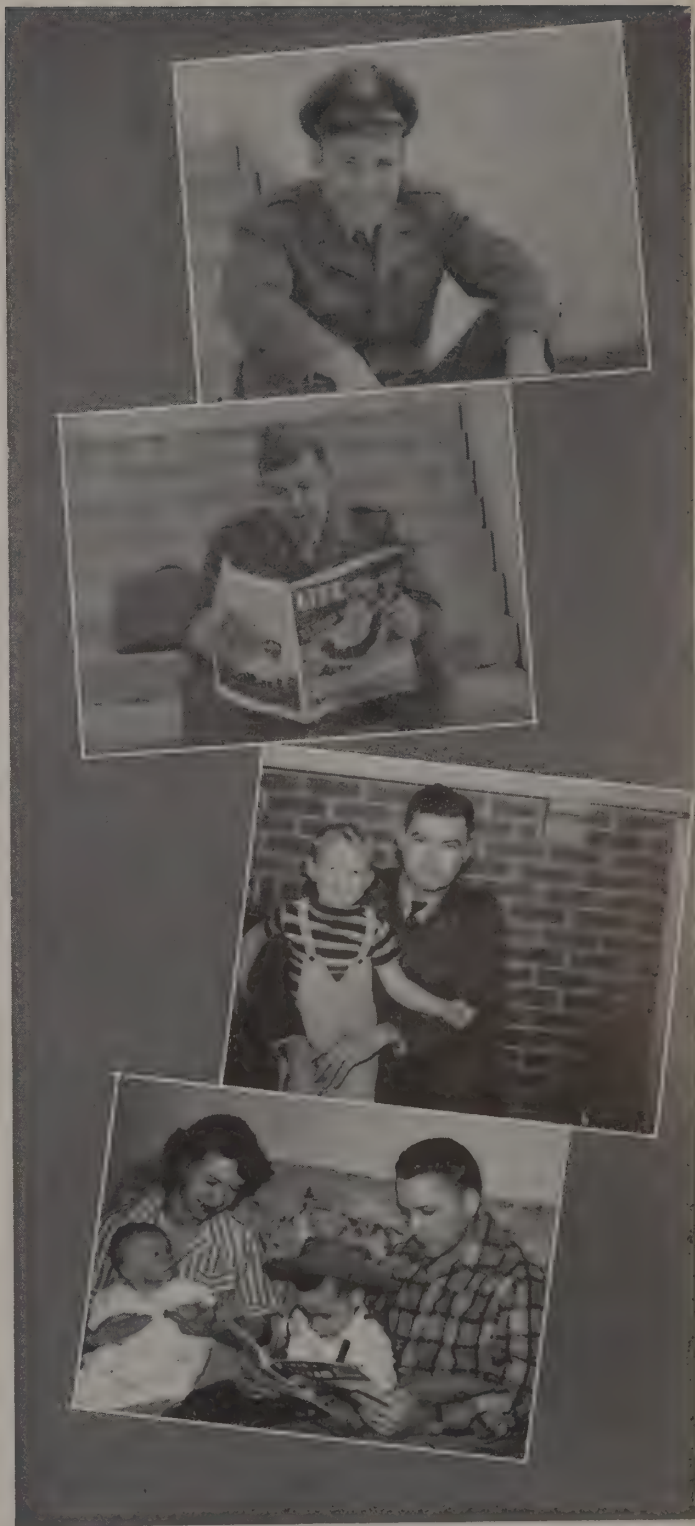
Golf, Navigation

This "Slammin' Sam" of the golf links occasionally has to call upon his celestial navigation ability to locate some of his line drives. Like all good navigators, this Pennsylvanian has proven sharp at figures. His engaging manner and neat appearance are of great advantage to him in all matters.

"Easy"

Golf, Tennis, Television

You'll find him where the sand is white and deep and the green grass grows all around. Among other things Easy became a new father, a big investor in General Motors, and a distinguished student in Economics while at AIT. A very likable lad.





THE GRADUATING CLASS

One Year Course

This department is designed for graduate engineering students. The curriculum consists of advanced academic work largely in the fields of management and economics with emphasis on war economics and industrial mobilization planning.

Survey courses in technical subjects such as aerodynamics, aircraft propulsion, aircraft structures, electronics and nuclear physics were part of the academic work of these graduates.

Upon these graduates will depend the future development of a sound relationship between the industrial world and the United States Air Force. This relationship will be promoted by a better understanding of the problems of industrial management and the Air Force.

INDUSTRIAL

ADMINISTRATION



GRADUATES



Captain Robert H. Ammon
703 N. 5th St.
Reading, Pa.



Lt. Colonel Herbert Anderson
4754 Vine St.
Denver, Colorado



Captain Howard K. Biles
1108 Center St.
Murfreesboro, Tenn.



Captain Robert P. Bright
402 N. Spring St.
Sparta, Wisconsin

"Bob"

No new hand in the industrial field, Bob has worked as a civilian procurement inspector and holds a degree from Wyomissing Polytechnic Institute. So that's where those "know how" answers came from! Last military job was in material planning and Bob is hoping to return to the same to apply his new talents.

"Andy"

A diversified career characterizes our able section leader. Born in Sweden, schooled at Colorado A & M, trained at the US Coast Guard Academy and polished in the USAF, including a Pentagon and a C & GSS tour, Andy is now flying on an industrial planning heading. His determination and assets should preclude any interim let-downs.

"Howard"

A former Alabamian, Howard refused to go farther north than Tennessee State College. After a whirl there he wound up as an asset at a local bank and during his service career gravitated back to the dollar sign as a budget and fiscal man. Howard is keen on Comptroller work and should find his schooling here a step in the right direction.

"Bob"

Bob joined us from Japan to give his USMA education a further boost. A photo-recon pilot during the war he is still taking the long-range view and wants to get all he can in the picture. Although quiet and modest we know his camera is loaded.





GRADUATES



1st Lieutenant James D. Chatfield
5503 Ravenna Blvd.
Seattle, Washington



Major Thomas S. Garrett, III
134 Argyle Ave.
San Antonio, Texas



1st Lieutenant Alan H. Gould
10 Granger Pl.
Rochester, New York



Major James C. Grove
323 East 55th St.
Seattle, Washington

"Jim"

Hails originally from North Dakota from where he departed for USMA. Spent the greater part of the time since then in the Pacific and is now slanted for an industrial management career. Jim's no book-worm but his common sense and fresh viewpoint should get him over all future hurdles.

"Tom"

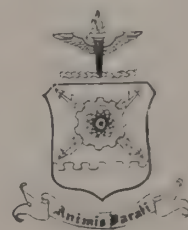
If his aims are as forthright as his voice, there is clear sailing ahead for Tom. Primarily an air operations man, he got in some active time with the 8th AF during the war. Now we know the source of that desire of his to write his term paper on the "Old English Tavern".

"Al"

An "upstater", Al left the Univ. of Rochester for USMA. Since graduation he toured with SAC but is now turning to matters industrial. There is no lack of "funnybone" in Al although he does have his serious pursuits, chief among which is music. Voted as most likely to laugh at Dusty.

"Jim"

One of the class oldsters, Jim joined us in search of an education cut short at the Univ. of Washington. Is keen on a management career in programming in which he has had several years practical experience. Although inclined somewhat toward the serious side of life, he was never a "no-show" on stag night.





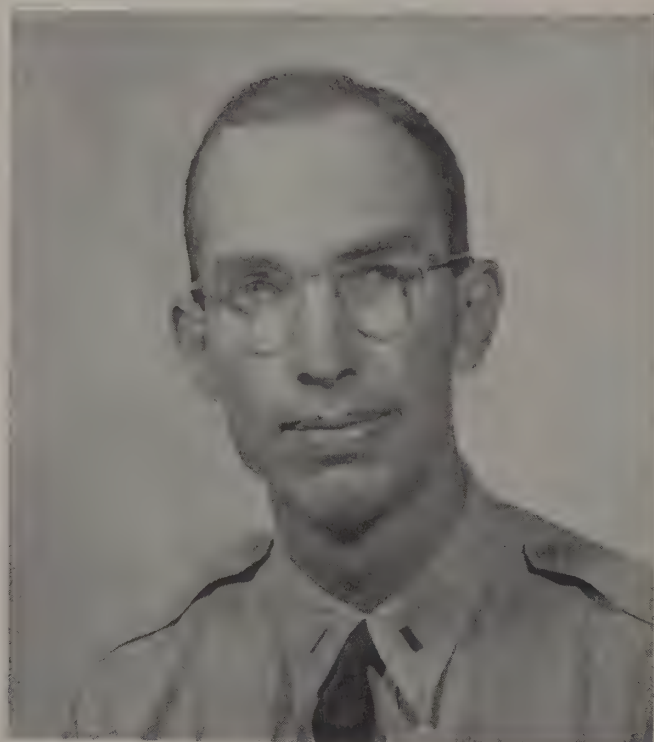
GRADUATES



Major Alfred D. Hagen
Ipswich, South Dakota



1st Lieutenant Joseph W. Huey
11625 Arlington Ave.
Bessemer, Alabama



1st Lieutenant Maxwell O. Johnson
Wahiawa, Hawaii



1st Lieutenant Floyd A. Johnston
274 Mather St.
Oakland, California

"Dale"

A fighter pilot and graduate of USMA, Dale is a great believer in marginal utility as regards cracking the books. Although his curve drops quickly such philosophy has evidently never interfered with his grasp of the fundamentals. Is aiming for a place in procurement in furtherance of his former assignment in petroleum purchasing.

"Joe"

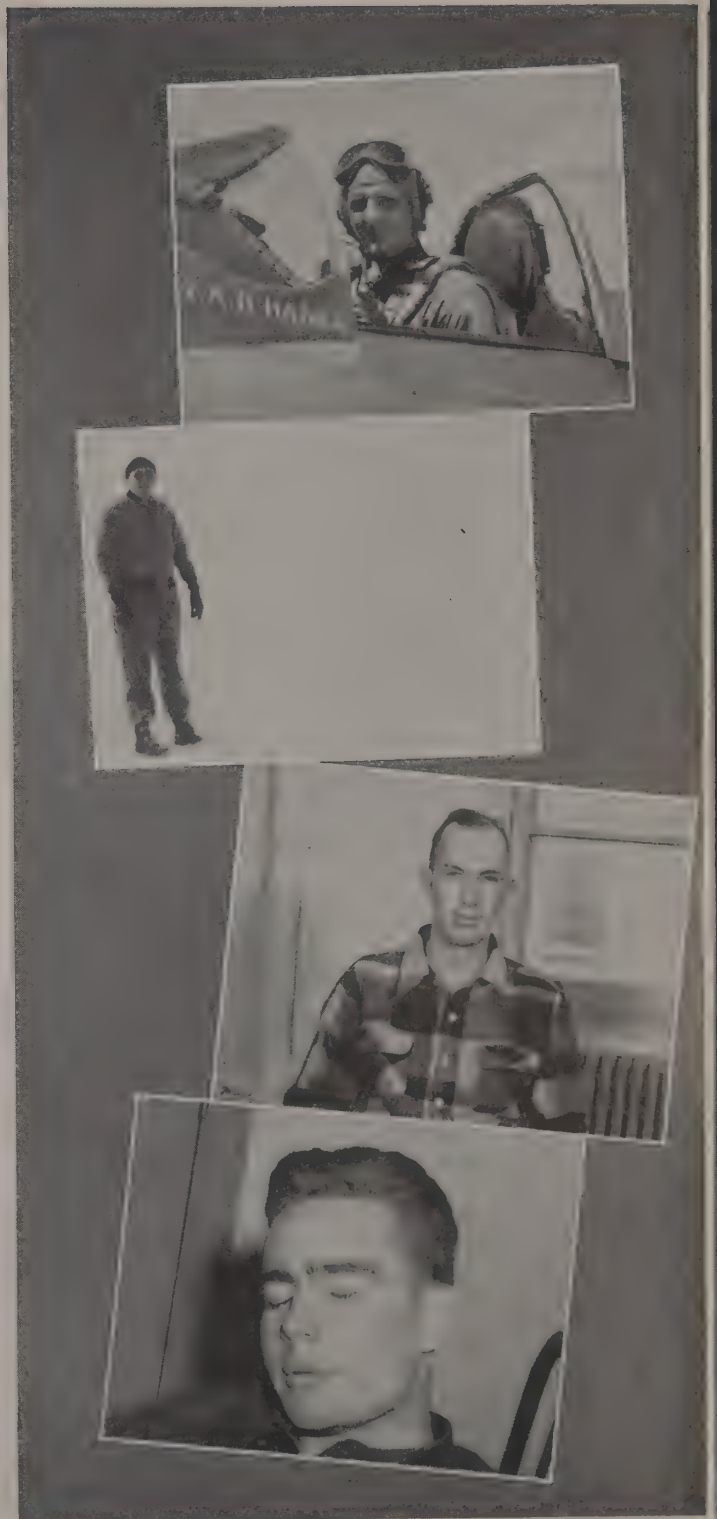
One of the few class bachelors, Joe has been steadfast in the maintenance of his status. He is not to be outdone, though, when it comes to affability. A graduate of USMA and "kiwi", Joe has a taste of industrial management at Watson Laboratories and expresses a yen for more of the same.

"Mo"

Insatiable curiosity matched with ability has enabled Mo to excel in almost all of his academic pursuits. A former student of the Univ. of Hawaii and UCLA as well as a graduate of USMA, Mo has aspirations for still further education. How does he ever squeeze in those bridge games at which he is so expert?

"Al"

Ever ready with a bon mot, Al's sense of humor has brightened many a dull day. Born in Kentucky, reared in California and schooled at USMA and Air Tac, he forges ahead with minimum effort but with more than satisfactory results. Voted the greatest TV addict.





GRADUATES



Major William R. Latham, Jr.
1425 Mitchell Ave.
Tallahassee, Florida



1st Lieutenant John W. Sherwood
PO Box 2826
Carmel, California



Major Desider A. Simcoe, Jr.
210 Grand St.
Trenton, New Jersey



1st Lieutenant George L. Slentz
1110 19½ Ave.
Rock Island, Illinois

"Bill"

Bill combines a nice balance of perspicacity and heartiness both generated in his former home in Georgia. A graduate from The Citadel, he has had civilian engineering experience and communication service with the Air Force, now topped by his management training. There's a place for you on our team, Bill.

"John"

Doesn't all count for pay, but John has lots of service having been born into it, the son of an Army doctor. Initial schooling was geographically dispersed and ultimately topped by USMA and Air Tac. Had a go in the Reserve program and now golfer John wants to shoot down the fairway of the business side of the Air Force. Bet he can do it in par.

"Dusty"

Possessed with the makings of a comedian, Dusty is still a man of no mean ability. Under his belt he has a degree from Penn State, a year at Georgetown Law School and another year at the Army Language School where he learned Russian and "schtuff". Has his sights set on an industrial planning career.

"Papa"

After the war, George tried a couple of years of civilian life, finished up college and then rejoined the AF for a tour of Okinawa. Upon assignment here, was not content with being merely a new student but went one better and became a new papa. By all reports, George takes both in his stride.





GRADUATES



Captain Leland R. Smith, USMC
Sterling, Kansas



1st Lieutenant William R. Stickman
239 Calumet Place
San Antonio, Texas



1st Lieutenant Richard H. Turner
837 S. Kennedy Ave.
Tyler, Texas



Captain Richard Van Bruggen
531 Warren St.
Albany, N. Y.

"Smitty"

A most refreshing prime mover of any bull session, Smitty may have his serious side but if he has we don't know it. A regular Marine—in all respects—this is his second tour in an Air Force school. No obstacle to unification is Smitty.

"Bob"

With a maturity beyond his years, Bob has sailed along nicely notwithstanding his divided interests. Hailing from the Middle West he was reared in the service and subsequently graduated from USMA. Has Air Tac and USAFIT under his belt, and from what we know of Bob there's room for more.

"Dick"

Dick's student days have been characterized by his steadfastness, even in the face of a heavy first-quarter curriculum to which he added married life. A former tennis star and a grad of USMA, Dick is procurement minded and is aching for an assignment "anyplace in Texas."

"Van"

Infantryman, cavalryman, bombardier and pilot comprise the service side of Van's ledger. A Netherlands native, he has been, among other things, a tax examiner, electrical engineering student at Rensselaer and a "bootstrapper" at Univ. of Maryland, the latter to the tune of his B.S. degree. With this background, Van's an asset in any man's army.





GRADUATES



1st Lieutenant Harry G. Walker
1295 Snowden Ave.
Memphis, Tennessee

"Harry"

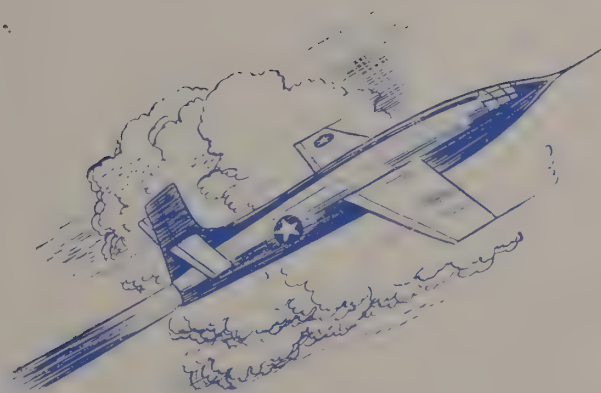
Harry's early education in the South and subsequent training at USMA gave him an inquisitive turn of mind which should reap him profits. A former hand with troop carrier—including the Airlift—Harry's interests have turned administrative; if domestic management counts, his position as father of two has given him a head start.

Commander James W. Williams, USCG
Farmersville, Texas

"Tex"

After New London and sea duty in the line, Tex turned to the aviation aspects of the Coast Guard with emphasis upon aircraft engineering. Here to round out this phase from the management viewpoint, Tex has navigated a gentlemanly course pleasurable to all associates.

THE faculty in the Department of Engineering Sciences is composed of a select group of educators and scientists, both civilian and military. Each represents a specialist in his field and has shown an imbued sense of responsibility toward the development of Air Force officers to meet the increasing needs of this arm of our national defense structure.



FACULTY

*Departments of Engineering
Sciences*



REGINALD H. DOWNING

Professor and Head of Department of Mathematics.

B.A., Acadia University, 1930; M.S., West Virginia, 1932; Ph.D., West Virginia, 1934. Instructor: West Virginia, 1930-38; Purdue, 1938-42. Chief Dynamics Engineer, Kaiser Fleetwing, Inc., 1942-47. USAFIT from 1947.



ALBERT B. CARSON

Associate Professor of Mathematics.

B.S., University of Arkansas, 1932; M.A., Vanderbilt University, 1933; Ph.D., University of Chicago, 1941. Instructor: Boise, Idaho, 1935-37; Illinois Institute of Technology, 1938-40; Louisiana State University, 1940-42. War Service with Air Force, 1942-46. USAFIT from 1944.



CARL HOLTOM

Associate Professor of Mathematics.

A.B., University of Nebraska, 1930; A.M., University of Nebraska, 1931; Ph.D., University of Chicago, 1942. Instructor, Purdue University, 1931-42; Professor, Purdue, 1942-48; USAFIT from 1948.



CAPTAIN JOSEPH MAHLER

Assistant Professor of Mathematics.

CCNY, 1938-39; USAFIT Graduate, 1948; M.S., Harvard, 1949. War Service with Air Force since 1943, USAFIT from 1949.

GUNTHER R. GRAETZER

Professor and Head of Department of Aeronautical Engineering.

Diplom-Ingenieur, Munchen, 1920. Helicopter Aerodynamicist, Convair, 1940-43; consultant, Piosecki Helicopter and Wayne University, 1944-47; USAFIT from 1947: Departments of Mechanical Engineering and Aeronautical Engineering.



HAROLD C. LARSEN

Assistant Professor of Aeronautical Engineering.

B.S., Utah, 1941; AAF Engineering School, 1945; M.S., California Institute of Technology, 1946. Production Engineer, Lockheed Aircraft Corporation, 1941-42; War Service with Air Force, 1942-49; USAFIT from 1946: Department of Aeronautical Engineering.



DAVID W. LEUCK

Assistant Professor of Aeronautical Engineering.

B.S., University of Michigan, 1943; M.S., University of Michigan, 1947. Engineer, Lockheed Aircraft Corporation, 1943-44; Engineer, NACA, 1944-46; Research, University of Michigan, 1946-47; Instructor, University of Washington, 1947-49; USAFIT from 1949: Department of Aeronautical Engineering.



CAPTAIN CONSTANTINE SVIMONOFF

Assistant Professor of Aeronautical Engineering.

USAFIT, 1947; M.S., California Institute of Technology, 1948. Engineer, General Petroleum Corporation, 1939-40; Engineer, Southern California Telephone Company, 1940-42; War Service with Air Force from 1942; USAFIT from 1948: Department of Aeronautical Engineering.





MARLIN O. THURSTON

Associate Professor and Acting Head of Department of Electrical Engineering.

B.S., University of Colorado, 1940; M.S., University of Colorado, 1946; Graduate work, Ohio State, 1947-50. Instructor, University of Colorado, 1940-42; War Service with Air Force, 1942-46; USAFIT from 1946: Departments of Physics and Electrical Engineering.



JOHN J. D'AZZO

Assistant Professor of Electrical Engineering.

B.E.E., City College of New York, 1941; Graduate work at Ohio State; Engineer, Western Electric Company, 1941-42; Engineer, AMC, 1942-43; War Service with Air Force, 1945-46; USAFIT from 1947: Department of Electrical Engineering.



MAJOR RICHARD C. GIBSON

Assistant Professor of Electrical Engineering.

S.B., Massachusetts Institute of Technology, 1942; S.M., Massachusetts Institute of Technology, 1946. War Service with Air Force in Radar and Communications from 1942; USAFIT from 1946: Department of Electrical Engineering.



1ST LIEUT. ARTHUR W. HESSE

Instructor, Electrical Engineering.

University of Wisconsin, 1942-43. Reid College, 1943-44. War service with Air Force since 1943. USAFIT Graduate, 1950. USAFIT from 1950.

MAJOR THEODORE M. MANLEY

Assistant Professor of Electrical Engineering.

B.S., Georgia Institute of Technology, 1940; M.S., University of Michigan, 1946; Graduate work, University of Michigan, 1946-47. Engineer, Airplane and Marine Equipment Company, 1940-41; War Service with Air Force from 1941; USAFIT from 1947: Department of Electrical Engineering.



DANIEL H. DALEY

Associate Professor and Acting Head of Department of Mechanical Engineering.

B.S., Purdue, 1942; S.M., Massachusetts Institute of Technology, 1946. Research and Development Engineer for Air Force, 1942-45; USAFIT from 1947: Department of Mechanical Engineering.



ANDREW J. SHINE

Assistant Professor of Mechanical Engineering.

B.M.E., Rensselaer Polytechnic Institute, 1946; M.M.E., Rensselaer Polytechnic Institute, 1947. Engineer, 1947-48; Instructor, Rensselaer Polytechnic Institute, 1948-49; USAFIT from 1949: Department of Mechanical Engineering.



CAPTAIN DONALD L. SPENCER

Assistant Professor of Mechanical Engineering.

B.S., Iowa State, 1942; M.S., Iowa State, 1948. War Service with Air Force, 1942-46 and 1947 to present; Instructor, Duke University, 1946-47; USAFIT from 1948: Department of Mechanical Engineering.





BUFORD E. GATEWOOD

Professor and Head of Department of Mechanics.

B.S., Louisiana Polytechnic Institute, 1935; M.S., University of Wisconsin, 1937; Ph.D., University of Wisconsin, 1939. Instructor, University of Wisconsin, 1935-39; Professor, Louisiana Polytechnic Institute, 1939-42; Engineer, McDonnell Aircraft Corporation, 1942-46; Research, Beech Aircraft Corporation, 1946-47; USAFIT from 1947: Department of Mechanics.



PAUL H. KEISTER

Associate Professor of Mechanics.

B.S., Purdue, 1929; S.M., Massachusetts Institute of Technology, 1939. Engineer, NACA, 1929-36; Engineer, AMC, 1936-39; Professor, West Virginia University, 1939-42; War Service with Air Force, 1942-46; USAFIT from 1946: Department of Mechanics.



HERBERT P. MARCO

Associate Professor of Mechanics.

B.S., Cornell University, 1929; M.S., Syracuse University, 1932; A.A.B., New Haven College, 1935; Ph.D., Yale University, 1935. Research: U.S. Forest Service, 1935-38; Research, Yale University, 1938-40; Professor, New Haven College, 1940-41; War Service with Air Force, 1941-46; USAFIT from 1946: Department of Mechanics.



1ST LIEUT. JOHN K. RIEDEL

Instructor, Mechanics and Materials Testing.

BSME, Pennsylvania State College, 1943. Design Engineer, Douglas Aircraft Co. and Boeing Airplane Co., 1943-45; Surveyor, Weyerhaeuser Timber Co., 1945-46. Military service, USAF from 1946: Engineering Division, AMC, 1946-47; Maintenance School, 1947-48; Engineering Officer, Berlin Airlift, 1948-49; USAFIT from 1949: Materials Testing Laboratory.

VALENTIN A. VALEY**Assistant Professor of Mechanics.**

B.S., Harbin Polytechnic Institute, 1933; M.S., University of California, 1934. Lecturer, Harbin Polytechnic Institute, 1933-35; Engineer, University of California, 1937-40; Instructor, Illinois Institute of Technology, 1941-42; Engineer, AMC, 1943-45; Engineer, California Institute of Technology, 1945-46; USAFIT from 1946: Department of Mechanics.

**WILLIAM J. PRICE****Associate Professor and Acting Head of Department of Physics**

A.B., Denison University, 1940; M.S., Rensselaer Polytechnic Institute, 1941; Ph.D., Rensselaer Polytechnic Institute, 1948. Instructor, Rensselaer Poly, 1941-42; Engineer, Bendix Aviation, 1942-45; Instructor, Rensselaer Poly, 1945-48; Research: Battelle Memorial Institute, 1948-49; USAFIT from 1949: Department of Physics.

**MAJOR FRANCIS M. BOX****Assistant Professor of Physics.**

B.S., University of Texas, 1941; Graduate work, Michigan University, 1949; Geophysicist, 1941-42; War Service with Air Force from 1942; USAFIT from 1949: Department of Physics.

**CAPTAIN TRUMAN L. FRANKLIN****Assistant Professor of Physics.**

B.S., Oklahoma A. & M. College, 1947; Graduate work, Oklahoma A. & M., 1948. War Service with Air Force, 1943-45 and from 1947; Instructor, Oklahoma A. & M., 1945-47; USAFIT from 1949: Department of Physics.





LaVERNE F. LEWIS

Assistant Professor of Physics.

B.Ed., Illinois State Normal University, 1934; M.S., University of Illinois, 1941. Instructor, Radio Engineering, Air Force Training Command, 1942-46; USAFIT from 1946: Department of Physics.



ROBERT P. WORTMAN

Head Instructor in Engineering Drawing.

Employed by the Air Materiel Command in 1920-26, Aeronautical Design Draftsman; from 1926-42, Head of Production Engineering Drawing Section; War Service Air Force from 1942-44; Mechanical Engineer and Head of Engineering Drawing and Specification Branch, Personal Equipment Laboratory from 1944-46; USAFIT from 1946.



HAROLD B. KEPLER

Instructor in Engineering Drawing

Undergraduate work at University of Dayton and Sinclair College; Engineering Draftsman, AMC, 1940-42; Designer, attached to Waco Aircraft Company, 1941-42; war service with Air Force as Bombsight Maintenance Instructor, 1942-45; Design Checker, AMC, 1945-47; Product Designer, Ohmer Register Corporation, 1947-48; USAFIT from 1948.

THE GRADUATING CLASS

Two Year Course

The curriculum of this department is divided into two sections, "Aero-Mechanical" and "Electronics". The graduating students began their course with an intensive review of mathematics, engineering drawing, engineering physics, statics, strength of materials, and engineering dynamics.

After this review the Aero-Mechanical students proceeded into a well-defined course of studies covering work in aerodynamics, aircraft propulsion, aircraft structures, production and war economics. The Electronic students meanwhile pursued a course in electronics, electrical engineering and physics.

ENGINEERING SCIENCES

To a large extent the success of the Research and Development programs essential to an ever progressing and up-to-date Air Force will depend on these graduates.



GRADUATES



Flight Lieutenant Glenn M. Adamson
Ottawa, Ontario
Canada



Captain John J. Anderson
Denver, Colorado



Captain Emmett E. Baker
1055 So. Lexan Crescent
Norfolk, Virginia



1st Lieutenant William D. Baxter
240 W. Garden St.
Uvalde, Texas

"Glenn"

Golf, Hockey

Our neighbor from the north country is a hard man to keep abreast of since he wastes little time in talking, but instead forges ahead of the field in his studious manner. Don't sell him short on the social end though, or he may surprise you as he has others.

"Andy"

Golf, Baseball

An "average raiser" from the start, John remained one of the boys, whether it was in the study room, or on the ball diamond or fairway. In his quiet manner "Andy" has earned the admiration of his classmates with his scholastic and athletic abilities, and will long be remembered for his blackboard "bull" sessions.

"Gene"

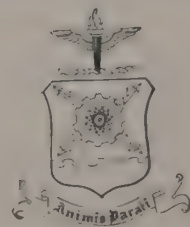
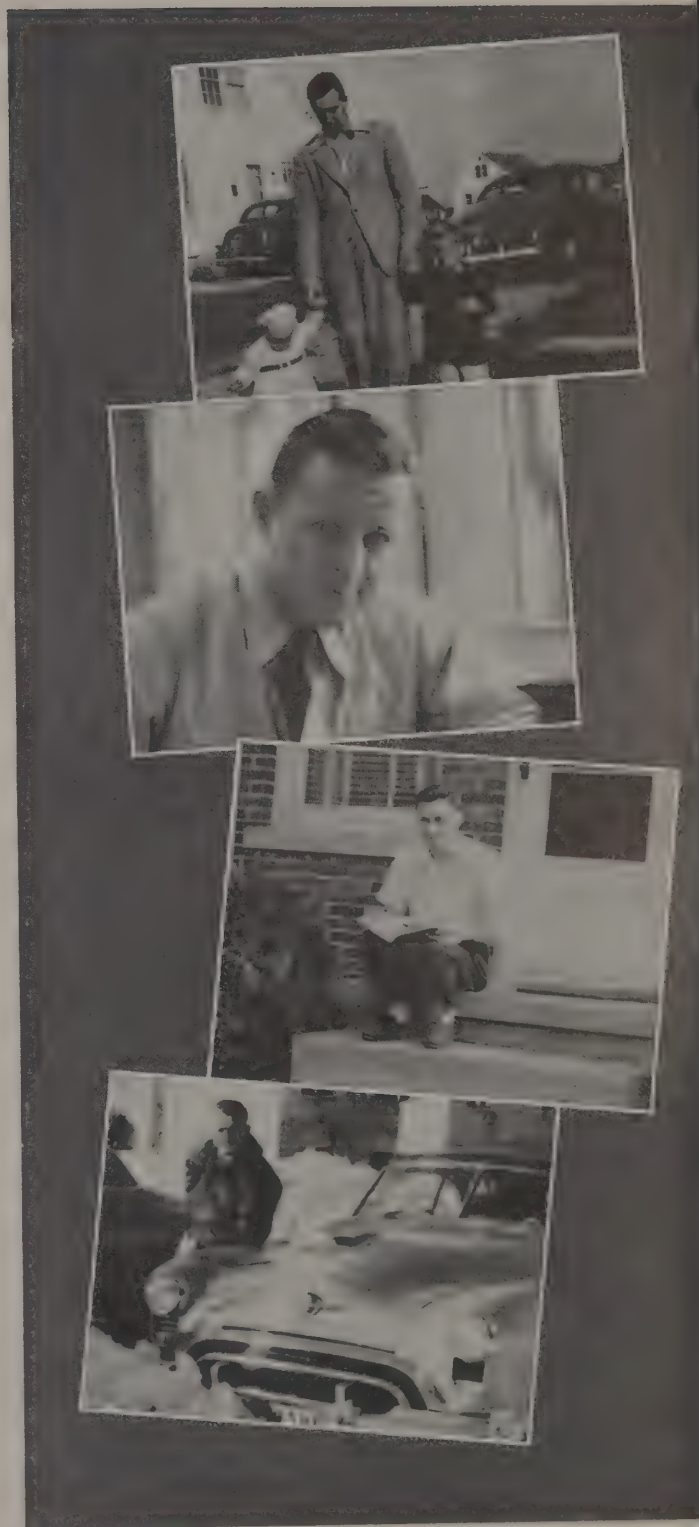
Sailing, Convertibles, Radio, IRE

Practical first, then theory—maybe—for Gene. A versatile talker, he can expound on electrical relays or diverge into why a fully-loaded 'jug' shouldn't fly—but does. His parents named him "EE" to encourage his electronic talents.

"Bill"

Baseball, Volleyball, Bridge, Student Council, Entertainment Committee

Bill can be identified in any group as: the teller of tales, a good laughter, a grinder outer, and a bachelor. His good humor, and his natural inquisitiveness for technical knowledge place him in the top drawer both socially and academically.





GRADUATES



Captain Walter D. Bennett
1922 Oakdale Avenue
Houston, Texas



Captain Robert J. Blake
Tujunga, California



Major Eugene A. Blue
2103 22nd Street
Lubbock, Texas



1st Lieutenant Robert S. Buchanan
Whittier, California

"Don"

Handball, Squash, Home Movies

It was a rough change for Don from the Paradise of the Pacific to the slide rule and bluebook, but his class standing proves he transitioned with little stress. He has a weakness for Aloha shirts, puns, and TV. Don is one of Fairborn's solid citizens and taxpayers.

"Bob"

Swimming, Volleyball, Photography

A tall, quiet, Lincolnesque figure, Bob is a hard working student who is always willing to be one of the team. Fearing nothing, except perhaps Manley's quizzes, Bob successfully attacked the problems before him. Well liked by everyone, a fine officer and gentleman, he should go far in his career.

"Gene"

Golf, Handball, Baseball, Section Leader,
Chairman I.A.S.

With his friendly nature and sound judgment, Gene was a natural for section leader. His calm endeavor placed him in the upper bracket of his class. Although a golfer by choice, there was plenty of Blue smoke during a baseball or handball game. To uphold the dignity of his native state, Gene owned the biggest car at AFIT.

"Buck"

Hunting, Fishing, Sports

Here is a boy who will never hesitate to lay down his slide rule to pick up a shotgun, especially when the hunting season rolls around. Buck's great love for the outdoors and his normal addiction to TV did not prevent him from climbing on the honor roll at every opportunity. One of the nicest guys we know.





GRADUATES



1st Lieutenant Nathan B. Chase
Germantown, Pennsylvania



Captain Randall L. Fetty
Los Angeles, California



Captain Richard B. Fowler
1520 Beechview Avenue
Pittsburgh, Pennsylvania



Captain Talbert M. Gates
Chardon, Ohio

"Nick"

Swimming, Basketball

An easygoing man with a sense of humor that couldn't be beat, Nick was never cut out in the race for the rear seats. There his red-rimmed eyes saw what he couldn't hear. Whether it's the weather service or the Institute, Nick does his job in an efficient, business-like manner.

"Fetty"

Bowling, Swimming, Softball

A fast worker with his studies, he seemed to have more time than most for relaxation. Always available for a good party, he still maintained a better than average class standing. His bowling and baseball talents were eagerly utilized by his section.

"Dick"

Photography, Bowling, Golf, Swimming

A proponent of the "take it easy" philosophy, Dick took AFIT in stride, and proudly heralded a new tax exemption with those inevitable cigars. A southpaw, even on the bowling alley, he had little difficulty maintaining a respectable standing in the league, as a bowler and a student.

"Tim"

Volleyball, Basketball

Here is a serious, hardworking, local (Ohio) boy who made good. Shortly after arriving at the Institute, Tim's processing included a march to the altar. The second year was characterized by his remarkably quick recovery from the strain of becoming a father.





GRADUATES



Captain Edward G. Graule
Jersey City, New Jersey



1st Lieutenant Lloyd P. Greenwood
335 Southlyn Drive
Dayton, Ohio



Major William F. Harris
Winfield, Kansas



1st Lieutenant George M. Hood
Steubenville, Ohio

"Ed"

Bowling, Tennis

Ed, the neatest and most precise worker in 1E51, is our goodwill ambassador and interpreter from Brooklyn. He started his tour at the Institute driving a '35 Ford. Finding things so to his liking, he bought a '49 Ford, a barrel of beer, and added one to his family.

"Lloyd"

Baseball, Volleyball, TV

Lloyd takes a genuine interest in any assigned endeavor and his academic mission is no exception. He chose the electron for a career and he's sure to reach his goal with a minimum of transients. He claims that slide rules and pencils are obsolete.

"Bill"

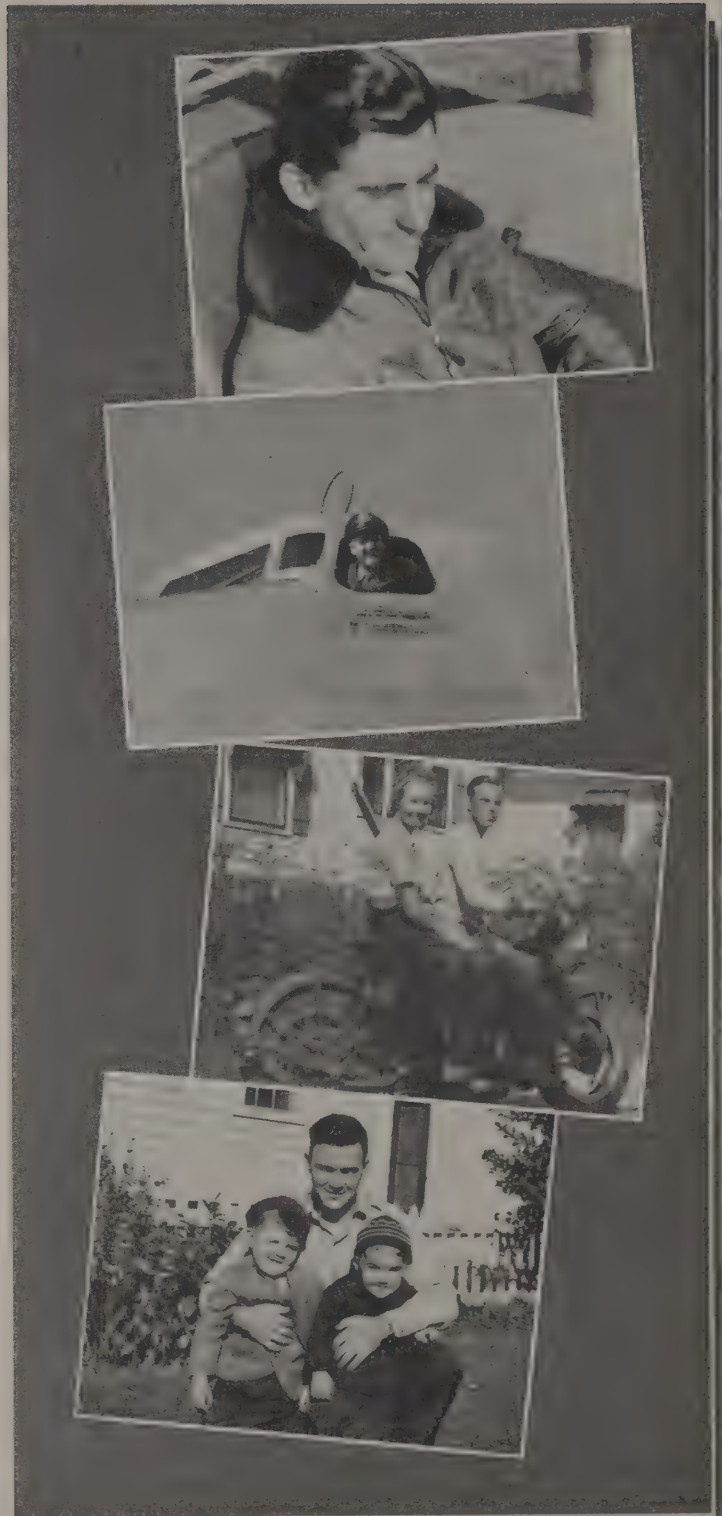
Handball, Golf, Volleyball

A respected instruments flyer from Kansas, equally at home in fighter or transport aircraft, who keeps oriented in the clouds whether they be academic or atmospheric. His well polished Ford reflects his attention to detail and his pride in a job well done. He is a hard man to beat in other fields also, as his opponents on the handball court will testify.

"George"

Volleyball, Bowling

Bronzed by Ohio's ever shining sun, sinewed and lean from laborious toil with the books, George remains as undaunted from the bludgeonings of academics as from receiving the biddie in a game of hearts. Unselfish and kind to others, George possesses a regard for his fellowman that makes him everybody's friend.





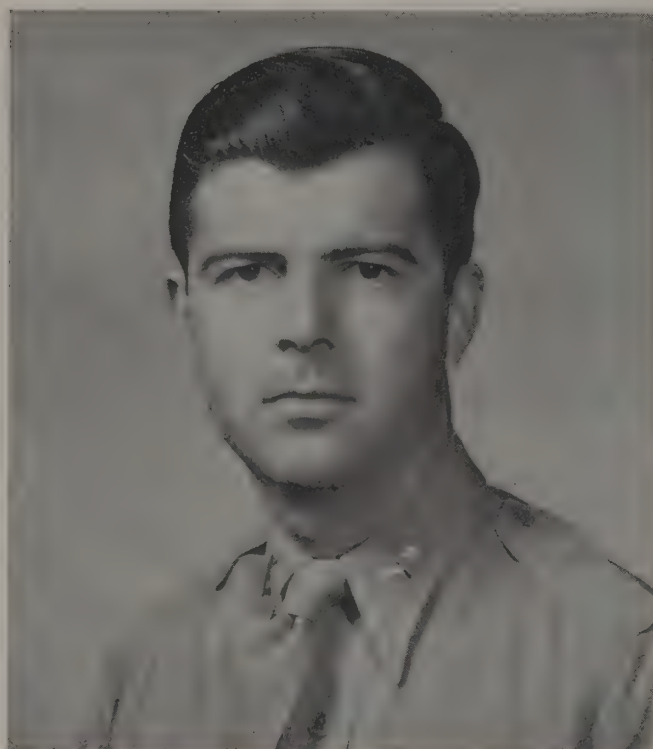
GRADUATES



Captain Henry C. Howard
Atlanta, Georgia



1st Lieutenant Homer H. Howell, Jr.
Austin, Texas



Major Ralph S. Jensen
Fairview, Montana



Captain Lyle R. King
Los Angeles, California

"Hank"

Golf, Volleyball, Softball

After a slow beginning, Hank got into gear, and did what everyone expected of him—came out one of the top men in his class. He displayed this determination on the athletic field, achieving distinction there as in his studies.

"Homer"

Photography, Tennis

The shutterbug of 1E51, Homer is one of those rare individuals who finds the time for what he wants to do. While maintaining an honor average at all times with apparent ease, he keeps a fine balance with a keen wit and friendliness hard to beat.

"Jense"

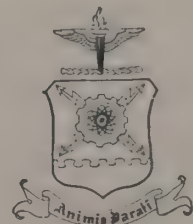
Volleyball, Bull-dogging

He's the Gary Cooper type, straight from his ranch in Montana. Jense wants to run the first radar set over the north pole as he says that could not be worse than his duties on the Burma Road. His AFIT tour paid off with a promotion—his annual—that is.

"Lyle"

Swimming, Flying

A ready smile, friendly to all, quiet, and possessor of a brain to boot—one of the top men of the class academically with little apparent effort. "You may be right" Lyle never lost an argument simply because he's never had one. Just mention "fighters" and his heart's in the blue.





GRADUATES



Captain Owen L. Koontz
4010 Holland Avenue
Dallas, Texas



1st Lieutenant Richard Lamprecht
Syracuse, New York



Captain Carleton B. Latimer
5423 South St. Andrews Place
Los Angeles, California



Major Winfield E. Little
Bentonville, Arkansas

"Koontz"

Golf, Radio

Golf—he loves it, next to making A's, that is. Happy-go-lucky Koontz will be remembered for his practical (?) solution; "—Put 110 across them all, you'll find the short!" His ready grin and wise cracks must have made life more bearable in Stalag Luft I.

"Lamp"

Volleyball, Contract Bridge

Although embarrassed sometimes by his curve shattering grades, Lamp never failed to set the pace in friendliness and modesty. Endowed with a keen and analytical mind, he should have little difficulty in solving whatever problems may come his way.

"CB"

Bowling, Golf, Softball

The Troop Carrier Command lost a good man when CB came to AFIT. His knowledge of and experience in instrument flight helped many of us pass our annual check. CB's specialty was wrangling plush-seated aircraft for the summer tours. He's a good student, and a congenial gent.

"Win"

Bowling Fishing, Gardening

The Major's fierce mustache belies his nature. Thoughtful, mild-mannered, and intellectually gifted, Win has maintained his status as one of the scholastic leaders. His willingness to supply correct solutions to any problem has provided a source of comfort to many.





GRADUATES



Captain Stanley T. Major
Norton, Vermont



Major Ivan K. Mays
Balko, Oklahoma



Captain Paul J. Melucas
Toledo, Ohio



1st Lieutenant Walter S. Moe, Jr.
Chicago, Illinois

"Stan"

Fishing, Hunting

With sheer determination, and the reflection of that blazing midnight oil flickering in his eyes, Stan hurdled that memorable second quarter. Here is a man that can be counted on, especially when the going gets rough.

"Ivan"

Section Leader, Handball, Volleyball, Softball

"Ivan the Terrible" certainly does not describe this likable, easy-going, soft spoken, "slide rule slipper" from Oklahoma. A man to watch on the handball court, Ivan is a hard worker who even manages to find time in his busy curriculum to raise a garden and to spend some time with his family. Should he apply his experience as a civil engineer to the design of military aircraft, we may anticipate more "concrete" construction.

"Big Red"

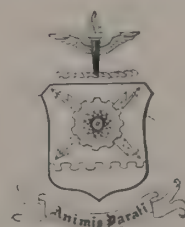
Bowling, Swimming, Music

Red is an ardent conversationalist who requires little coaxing to join in the discussion of any topic, especially model railroading. His activities included weekly commuting to Toledo, outguessing the Profs, emerging from exams triumphantly, and debating the pros and cons of pursuing graduate work.

"Walt"

Golf, Baseball, Volleyball

Here is a truly versatile individual. Walt came to the Institute with a B.S. in Math. He is one of the top students scholastically; captained the baseball team; played golf, volleyball, and basketball; yet he always found time to help those who were having a hard time.





GRADUATES



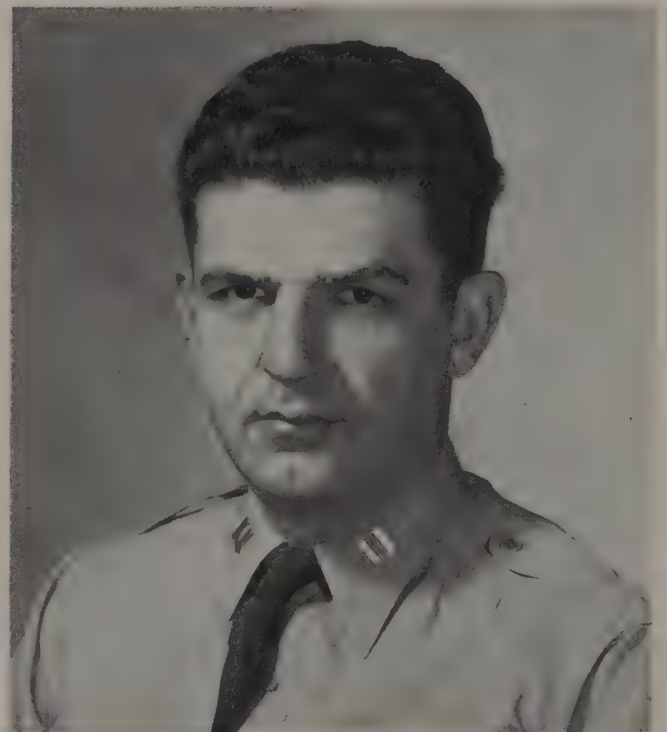
Captain Bill H. Moranville
Bayard, Nebraska



1st Lieutenant Charles E. Nelson
Huntington Park, California



Major Raymond E. Nelson
Superior, Wisconsin



Captain Clifford G. Page
Sausalito, California

"Bill"

Golf, Baseball

Bill, "never late early," had control of the 0810 buzzer even after he acquired the Mercury. Both stringing high lines in Wyoming and flying B-26's over Italy were "duck soup" compared with his mission at the Institute. Bill is the type you'd want on your team.

"Chuck"

Tennis, Fishing, Volleyball

Chuck will be remembered always for his effervescent enthusiasm and friendliness, particularly when P-38's are mentioned. Here is a fighter pilot who looks the part. He has an answer for any phenomenon, be it scholastics or the unusual L. A. weather.

"Ray"

Softball, Fruit Farming

R is for "Ray"; first in the lines

A is for Air; he flew the Airlines

Y stands for Yellow; boy, look at that hair

M is for Money; he'll have it to spare

O is for the Oregon prunes that he grows

N stands for Nice; the best of the "Joes"

D is for the Dignity that everyone knows.

"Cliff"

Volleyball, Softball

Although Cliff is not being true to his former electron chasing talents, he managed to hold more than his own with the aeronauts. He is quiet and unassuming but has a marked sense of humor and a down-to-earth manner which makes him a man who is liked by everyone.





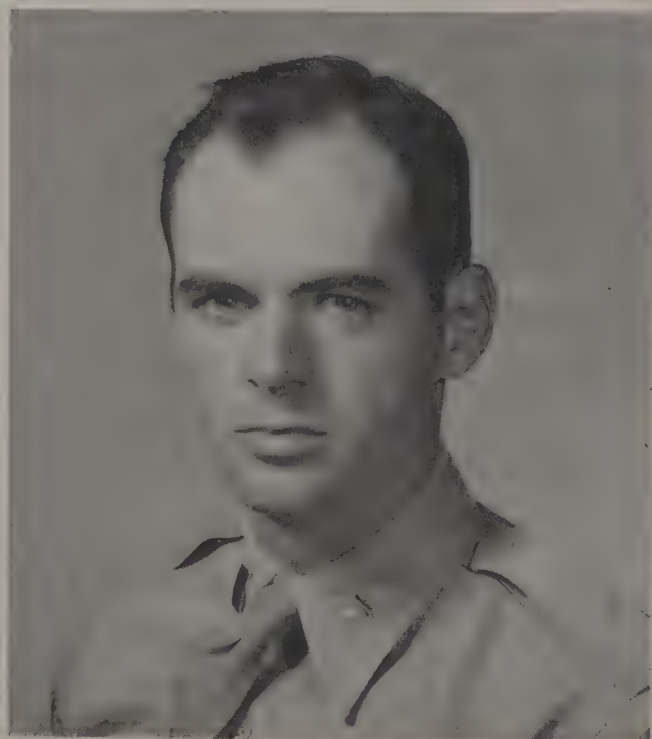
GRADUATES



Captain Everett S. Penick, Jr.
Elkton, Kentucky



Captain Frank H. Perkins
Oklahoma City, Oklahoma



1st Lieutenant Daniel C. Perry
Bristol, Rhode Island



Major Lee L. Peterson
Central City, South Dakota

"Judge"

Basketball, Swimming, Hotrods

He's a versatile guy. He can bounce putty while making an "A" on a final exam—or leave home in his Studebaker and arrive at school in his Volkswagen. Judge found time for many extracurricular activities while maintaining his name at the top of the honor roll—in fact, he usually had "TIME" for lunch.

"Perk"

Volleyball, Sleeping, Beach Combing

Contributed greatly to the spiking ability of the Volleyball team. The high average boys found stiff competition in Perk who set the pace with his 4.0 plans, including graduate work in surfboard servo-mechanisms.

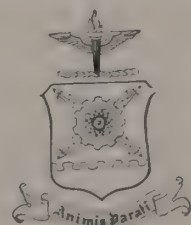
"Dan"

Basketball, Tennis, Golf

Dan is a combination scholar and athlete. He found time to be a regular member of the Institute basketball and tennis teams, in addition to maintaining a comfortable margin over the academic department. An easygoing fellow by nature, but one who can get the job done when the pressure is on.

"Pete"

A student of outstanding ability and an officer of highest caliber, Pete's warm, friendly grin won him a place in the affections of all of us. His tour at the Institute bestowed on him his gold leaves and the job as President of the Class.





GRADUATES



Captain Val E. Prah
Kilgore, Texas



Captain Donald E. Quail
Fresno, California



Captain Albert Rooten
Greenville, South Carolina



Captain Glenn J. Schaffer
Milwaukee, Wisconsin

"Val"

Handball, Squash

A virtual sphere of energy and enthusiasm, Val is sure the Cadillac and the B-26 were cut from the same chunk. He's always willing to tackle the toughest problem or the hottest coffee, but naturally the problem comes second. His sense of humor, congenial manner, and good-natured bantering will be long remembered by all of us.

"Don"

Swimming, Fishing

Don, a native of California and a college grad, had no academic difficulties. His keen sense of humor and conscientious application to his duties mark him as a fine working partner. A versatile man, he managed to add a daughter and a TV set to his domain during his tour at the Institute.

"Al"

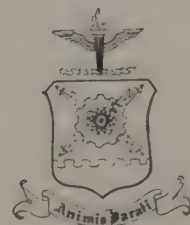
Swimming, Bowling, IRE

His convertibles may have changed with the seasons, but his ready good humor never changed, even when quiz papers flew like snowflakes in December. His experience in R & D assignments, together with his studies at the Institute mark him as a well-qualified engineer.

"Glenn"

Golf, Handball, Volleyball

Glenn is a straight shooter who left a position as instructor in aerial gunnery at Williams Field to take a shot at the "Institute" curriculum. That his hard work and conscientious endeavor have paid off is evidenced by the high scholastic marks he has attained.





GRADUATES



Captain Donald B. Schneider
Charleston, Illinois



Captain Dean C. Schweitzer
Canton, Ohio



1st Lieutenant Orville O. Scroggin, III
Little Rock, Arkansas



1st Lieutenant Van H. Shepard
Monroe, Louisiana

"Don"

Baseball, Volleyball, Babysitting

We nearly lost him when he went to the hospital, but by diligent effort during the summer he caught up and showed us all that it can be done. Don's a member of the Sacramento Chamber of Commerce and is "pop" to three boys.

"Dean"

Swimming, Bowling, Volleyball, Softball

A terrific bowler, Dean could almost always be counted on to mark every frame, even if it meant putting off that Lab report for another day. A quiet guy, with a great big grin, he also managed to build up a respectable standing in the academic league.

"Scrog"

Hunting, Fishing, Tennis

Scrog has the reputation of being one of the hardest workers in the class, as evidenced by his long hours of study and voluminous sets of notes. It appears that the ex-fighter boy will be returning to his old haunts in Air Installations work, where his perseverance and determination should see him through to a fine career.

"Shep"

Bowling, Softball, Swimming

Shep, the Artful Dodger, still clings uncertainly to his holdings at the BOQ, fretfully aware that he is fertile material for planting at the altar. An all around athlete, we remember Shep mostly for his ready smile, and we got all the time in the world manner.





GRADUATES



Captain Charles C. Smith, Jr.
Chatom, Alabama



Captain Hardy M. Smith
Austin, Texas



Captain Allen W. Snook
Box #43
New Salem, Kansas

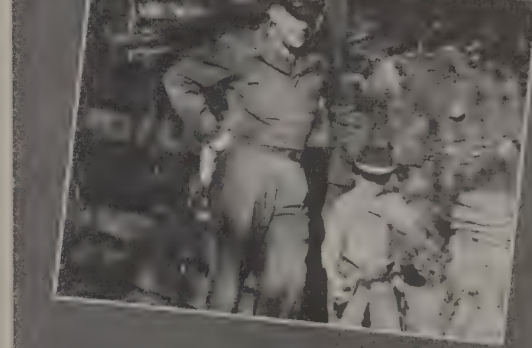
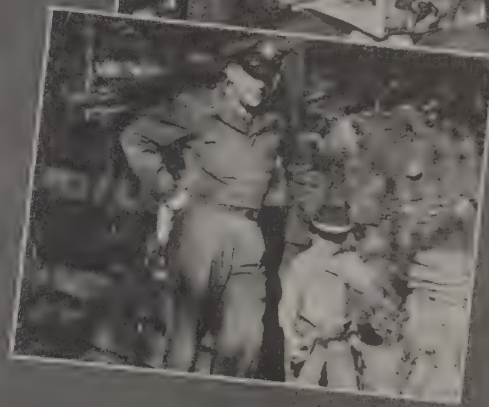
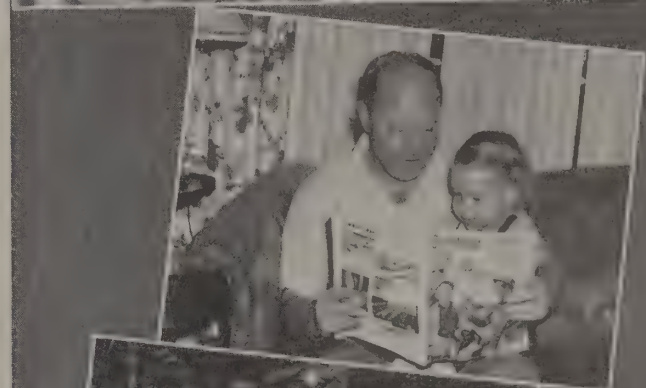


Major Raymond D. Stephens
617 Broadview Drive West
San Antonio, Texas

"Smitty"

Golf, Handball, Photography, Woodworking,
"Integrator" Photo Editor

Smitty found that the brand of physics at USAFIT was slightly different from that he taught in Alabama. His talents will place him high on the electronics officer "wanted" list. The midnight oil flowed at Smitty's place while he was making this yearbook a success.



"Smitty"

Photography, Swimming

Smitty will be remembered for his inexhaustible supply of chewing gum (candy-coated), Kleenex, and slide rule lubricant, and those long hard-working afternoons in the study room, "—So we can get this Lab report done and go swimming."

"Al"

Hunting, Fishing, Basketball

Quiet, steady, purposeful—that's Al in a nutshell. If Al ever had the AFIT jitters from an overdose of "engineer rigor", he kept it to himself. His favorite hobby was a weekend in Wichita or relaxation with his family in "penthouse row."

"Steve"

Calf Roping, Horseback Riding, Volleyball, Softball
Somehow Steve could always find time from his studies for those all important XC's to the Lone Star state to round up those lonesome steers. A true son of Texas, Steve would return to attack the problems of AIT with characteristic aggressiveness while corraling his charges of 3E51.





GRADUATES



Captain John W. Zimmerman
1736 East Almeria Road
Phoenix, Arizona



Captain Claude J. Wilson
Concord, California



1st Lieutenant Richard V. Walker
Waynesboro, Pennsylvania

"Johnny"

Bowling, Volleyball, Fishing

Two of Johnny's many good points are—he's a good taker of notes and he owns a thorough laugh. It's said that he may displace a decimal point but the pepper isn't misplaced in his special Mexican dishes. He likes to fish in Lake Michigan and he's an early riser.

"Willie"

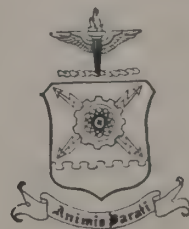
Photography, Baseball, Football

Master of the flip quip, Willie always has the latest joke. Despite domestic tasks which include juggling baby bottles and assorted diapers for three young-uns, he always has a ready smile and manages to get to school on time. We'll always remember Willie for his, "Say, old man—Have you heard this one?"

"Dick"

Photography, Music, Art

A very eligible member of the Brain Trust, especially in the field of mathematics, Dick provided a welcome source of entertainment for the BOQ bunch with his TV set, Stradivarius, and super hi-fidelity record player.





THE GRADUATING CLASS

One Year Course

The curriculum of this course was designed for special students from civilian institutions. Undergraduate students were selected from civilian colleges for specialization in Electronics or Aero-Mechanical Sciences.

These special students were given a short review and then plunged immediately into the task of mastering their special courses.

ENGINEERING SCIENCES

In addition to their specialized training, the students were allowed to elect courses in the Industrial Administration Department. This enabled these students to broaden their background in labor relations and management problems.



GRADUATES



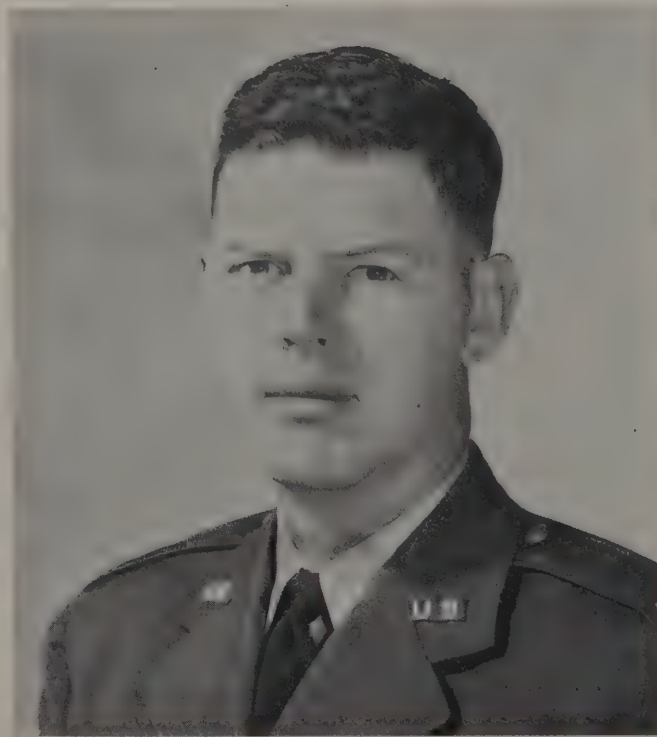
Major Orville G. Adams
Daytona Beach, Florida



1st Lieutenant Milburn G. Apt
Buffalo, Kansas



Captain Frank J. Augustyn
286 Crown Street
Meriden, Conn.



1st Lieutenant Cole D. Bacon
Rt. #5 Birchmont
Bemidji, Minnesota

"O.G."

Golf, Woodworking, Photography

Section Leader for 1-ES! It was a thankless assignment, acting as liaison officer between the wheels and the vacuum tubes, but he did an excellent job. He sat in the last row, so he could keep an eye on the boys and get a breath of fresh air when the going was foggy.

"Mel"

Volleyball, Handball

Mel entered the Air Corps in 1942. Received his wings and commission at Luke Field in 1944. Served in the 369th Fighter Group for one year, then with the 4th Recon Squadron, Caribbean Defense Command for 15 months. After CDC he attended Kansas University as an engineering student and prior to AFIT he served as an instructor in jet Fighters at Williams AFB.

"Frank"

Bowling, Baseball

Possessing an uncanny ability to extract the utmost from any situation, he has always set a standard unattainable by most. Outstanding scholastically, his other attributes are on an equal plane. He is well liked and admired by all. A welcome addition to any group.

"Bake"

Golf, Volleyball, Basketball

Transferring from the Industrial College after a year, Bake found a slide rule more interesting than a rostrum. Being a native son of North Dakota, Bake is prepared for that chance assignment just south of the Arctic Circle.





GRADUATES



Captain Richard E. Barr
772 N. Allen Street
State College Pennsylvania



Captain Harlan H. Benoy
1521 Plum St. Apt. A
Springfield, Ohio



Captain Reynolds O. Boaz
Box 96
Cowan, Tennessee



1st Lieutenant Joseph R. Clark
5901 Clintonville Road
Pontiac Michigan

"Dick"

An honor student with a keen mind and a questioning attitude his enthusiasm for class discussions went far in helping the rest of us. It was a big jump from flying "Sabres" to mastering electronics but Dick took it in stride. An OSU man who made good at the Institute.

"Ben"

Volleyball

Born in Columbus, Ohio, Ben is a graduate of Howe Military School, attended Ohio State University, and received a B.S. in Aero Engineering at Tri-State College. Commissioned in 1941 as a pilot he was affiliated with Bendix Aviation Corp. and spent two years on Guam before coming to AIT.

"Bo"

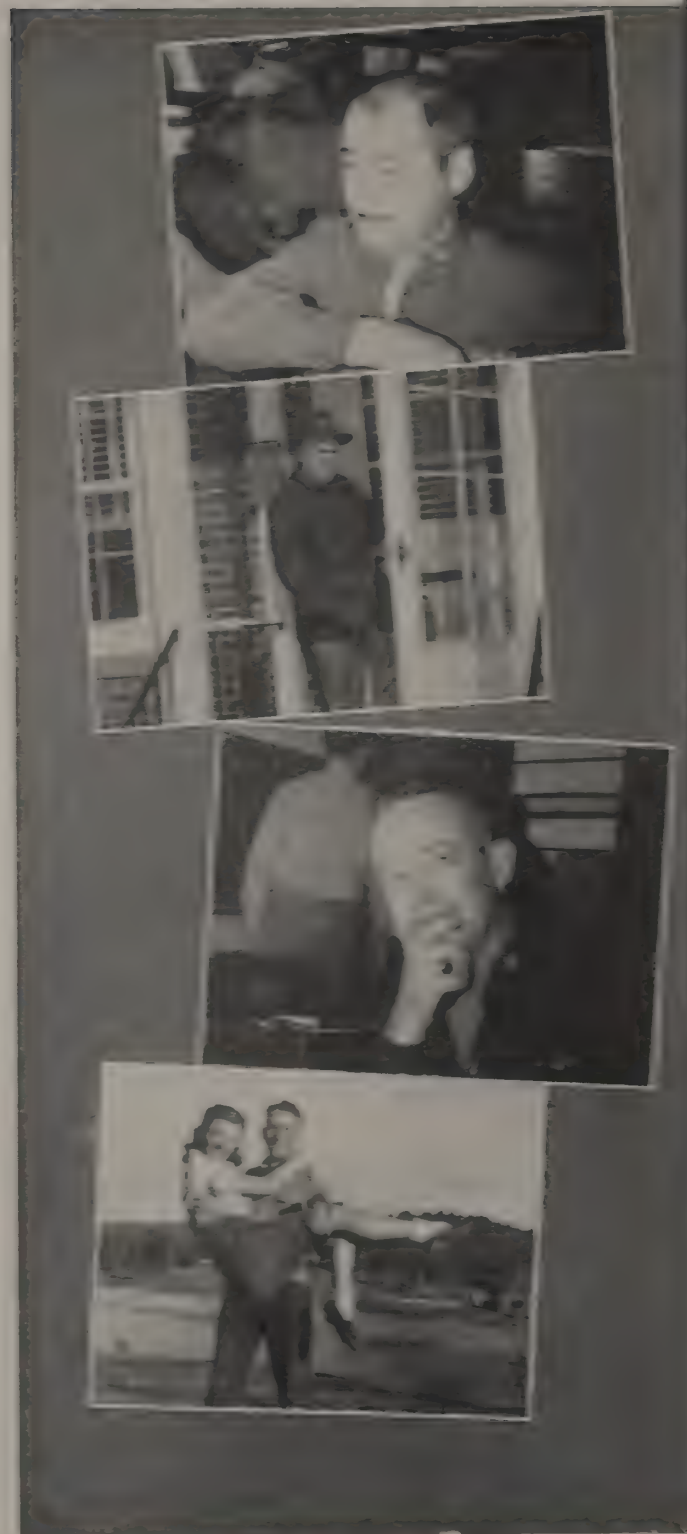
Model Railroading

Bo sitting right up there in the front row was one for the "why" of the situation. He never took anything for granted and his insistent questions hammered home many a point.

"José"

Golf, Photography

With one eye on the clock and the other in a "Quick" magazine, José was an upstanding student, always arising immediately at the sound of the second bell. In addition to plowing through the special curriculum, he was a "cum laude" graduate of the Coffee Shop.





GRADUATES



1st Lieutenant Lester E. Clark

R.R. Box #28
Valley Station, Kentucky



Captain Vernon F. Creighton

Shubuta, Mississippi



Captain James H. Doolittle

102 Exchange St.
Hot Springs, Arkansas



1st Lieutenant Charles W. Flanders

1148 S. Trenton Street
Tulsa 5, Oklahoma

"Les"

Golf

In his quiet, unassuming manner, he was an honor student. A family man with two children, Les found ample time for golf, in spite of the heavy work load carried at the Institute.

"Vernon"

Golf, Swimming

His determination and thoroughness make him work harder than most of us. He is exacting and methodical by nature, and is always willing to apply his talents to any assignment, obtaining the best results.

"Jim"

Flying, Volleyball, Bowling

'Tho his mind is on electronics as required, Jim's heart is still driving Uncle's birds about in the blue.

"Chuck"

Photography, Leatherwork

A native of Vermont, with more than the usual common sense and determination normally associated with New Englanders, Chuck exemplifies sincerity, good-will, and accomplishment. He captained the volleyball squad with the same spirit and enthusiasm that he showed in his studies.





GRADUATES



Captain Clyde Fox
1136 N. Cincinnati Ave.
Tulsa, Oklahoma



1st Lieutenant Richard R. Galt
Susquehanna Ave.
Selinsgrove, Pa.



Captain Benjamin F. Gregory
2801 Victory Avenue
Norfolk, Virginia



Captain Willard B. Helms
Rt. #1, Box 444
Preneville, Oregon

"N.M.I."

Swimming, Golf

Endowed with a friendly disposition, Clyde is a "dyed-in-the-wool" fighter pilot but believes, as most of us, that he is surely destined for a long tour in a swivel chair.

"Dick"

Volleyball, Swimming

Looking backwards, Dick came to AFIT from a year in the Training Command at Keesler. Before that he put in a tour on Okinawa flying jets and two years at Selfridge Field with the 56th Fighter Group. His introduction to the AF was via the West Point class of 1946.

"Greg"

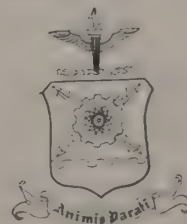
Table Tennis, Softball

Soft-spoken (with that Virginia accent), and always cheerful, he applied himself with vigor and determination to everything he tackled. An all-around athlete, Greg was one of the finalists in the Institute Table Tennis Tourney.

"Bill"

Hunting, Fishing, Photography, Volleyball

His easy smile and friendly manner are matched with a keen sense of humor and subtle wit. His associates know him as a hard worker, conscientious student, and a good friend.





GRADUATES



Captain James W. Heyroth
Hamilton, Texas



1st Lieutenant Steve E. Hilovsky
1624 Orchard Drive
Arnold, Pennsylvania



Major Wilbur L. Jobanek
Dexter, Oregon



Captain Jerome J. Jones
6727 Troost Avenue
North Hollywood, California

"Jim"

Fishing, Golf, Photography

On first impression, Jim is quiet and unassuming, but his versatility and competency are often surprising. He takes on each task with a determined effort to do his best. He will always be remembered by his classmates as an excellent student with a friendly manner.



"Steve"

Volleyball, Handball

After graduation from USMA in 1946, Steve was assigned to SAC at Carswell AFB, Texas. During his 3½ year tour with SAC his assignments were varied but armament was his chief interest. Flying B-29 and B-36 aircraft gave Steve a broad background before attending AIT.



"Jo"

Golf, Photography, Swimming

Jo manages to shoot a good game of golf although handicapped by a knee injury suffered when playing football at the U.S. Naval Academy. His good sense of humor and varied experiences in civilian life as well as in all branches of the military service will insure success in the Air Force.



"Jerry"

Amateur Movies, Swimming

This boy comes from the part of California where they grow them tall. Size, crew cut, ready smile and red suspenders are his trade marks. Swore that he'd study every afternoon he was here. Never did. Got his P.T. taking care of his bambinos.





GRADUATES



Captain Rufus K. Keeling
8th and Eugene
Fowler, Colorado



Captain Forrest M. Keene, Jr.
1308 W. Oklahoma
Enid, Oklahoma



Captain Archer W. Kinney, Jr.
4134 249th Street
Little Neck, New York



Major Ralph W. Kiser
Route #7
Charlotte, North Carolina

"Rufe"

Woodworking, Golf

Rufe is an alert, keen minded fellow who takes little for granted and is always willing to help his classmates in solving their problems. His cheerful, even-tempered disposition gained him many friends and assure his success in any field of endeavor.

"Pat"

Golf

Pat got his Arctic indoctrination while on leave in the Big Blizzard. He was so eager to get back to his studies that he walked the last two miles to WPAFB, carrying his family on his back. His untiring energy and perseverance stood him in good stead at AIT and will always be an asset to him.

"Arch"

Golf, Photography

A Brain? It was a constant mystery how he found the time to frolic with his daughter, see all the latest movies with his charming wife, keep his golf score in the low 80's and knock out good grades. Come on, Arch, let us in on it.

"Ralph"

Amateur Radio

Ralph had plenty of practical experience before coming to the Institute, both in AACCS and as a "ham" (station W4FYP). He claimed that this didn't help much with the theoretical electron, but we wonder. An excellent student and a "Southern Gentleman".





GRADUATES



Captain Oiva Kivipelto
204 E. Conan Street
Ely, Minnesota



Captain Glenn E. Lairmore
2830 N.E. Prescott
Portland, Oregon



Lt. Colonel Gerard A. LaRocca
1734 S. 9th Street
Philadelphia, Penn.



Captain John E. Lawyer
1219 14th Street N.
St. Petersburg, Florida

"Kiv"

Golf, Fishing

Usually quiet and unassuming, Kiv is perfectly reasonable until the talk gets around to home states, and then he suddenly becomes a Minnesota booster unequalled in eloquence even by Texans.

"Larry"

Hunting, Skeet, Golf

The "Key West Kid" found time for a quick week in Florida during the blizzard of '50, played some golf, even if he didn't have the "famous 36" of Purdue nearby, was a good man at the Club stag-nights, and still found time to keep his grades up.

"Jerry"

Volleyball, Golf, Section Leader

A graduate of USMA class of 1941, Jerry saw a great part of WW II, with three tours in the Pacific. He got his technological experience as a squadron commander in the technical section of the Evaluation Division at the Air University. After graduating number one in his class at Air Command and Staff School, he came to AIT. Still eager, he desires to continue his studies in graduate training after completion of this course.

"Jack"

Photography, Swimming, Bowling

A capable and earnest student with a sense of humor and plenty of ability, his propensity for hard work, his good common sense, and a friendly nature will carry him far. Jack divided his time between his studies, his family, and his new TV set.





GRADUATES



1st Lieutenant Allen F. Learmonth
3341 Locust Street
Riverside, California



1st Lieutenant Austin C. Lemon, Jr.
2278 Circle Drive
Raleigh, North Carolina



1st Lieutenant Gaylord MacCartney
416 Maple Avenue
Haddonfield, New Jersey



Captain Harold L. Moffat
1809 Redondo Ave.
Salt Lake City, Utah

"Al"

Volleyball

A native of sunny (?) California, Al graduated from USMA in 1947. Took pilot training at Randolph and Barksdale, then was assigned to the 47th Bomb Wing at Barksdale. He arrived at AIT from Biggs AFB where he was flying B-26's with the 1st Tow Target Squadron.

"Austin"

Golf, Photography

Austin was the quiet, serious type, with an active interest in others and always willing to extend a helping hand. He was sincere in all of his work, and his dry wit enlivened many an otherwise dull and uninteresting session.

"Mac"

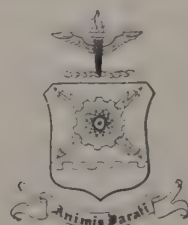
Volleyball, Swimming, Golf

Hailing from New Jersey, Mac attended Drexel in 1942, MIT in '43 and USMA in '44-'48. After graduation from USMA, he was assigned to the 52nd Fighter Wing at Mitchell AFB. In Feb. '50 he attended Radiological Defense School, Army Chemical Center, Md. "Quick of wit and a ready question" is Mac's trademark.

"Blondie"

Hunting, Fishing, Volleyball, Football

A quiet, modest fellow who thinks a lot and well as his grades indicate. His willingness to help others and his ability and attitude has made him one of the most popular members of this group.





GRADUATES



Captain Edgar W. Moody
209 Moon Street
Cartersville, Georgia



1st Lieutenant James D. M. Morris



1st Lieutenant James E. Paschall
200 Connor Street
Wilson, North Carolina



Captain Edward R. Regis
Rimersburg, Pennsylvania

"Egghead"

Basketball, Volleyball

A ready smile, an appropriate witticism from this conscientious student make AIT a more livable place for his having been around.

"Jim"

Volleyball

Jim came to AFIT from a 2½ year hitch at an AF Reserve training center. He graduated from USMA in 1945, served 2 years overseas in F-47 outfits with the 1st Air Division on Okinawa and the 20th AF on Guam. A seeker of knowledge, Jim leaves no stone unturned.

"Jim"

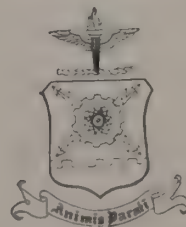
Volleyball, Handball

Jim, a true southern gentleman, launched his career in the Air Corps, December, 1942. A graduate of West Point 1946, Air Tac School, 50A, service with SAC and AFSWP has seen his unfailing good humor, reliable and forceful character mark him as an invaluable asset to the Air Force.

"Shorty"

Model Aircraft, Golf

The typical jet-jockey type, Ed had a dry sense of humor and a story for any occasion. His tour at AIT reminded him too frequently of his incarceration at Stalag-Luft III. A conscientious student, he was well liked by all his classmates and instructors.





GRADUATES



Captain Joseph F. Reynolds
Long Island City, New York



1st Lieutenant Marion R. Richards
Parris, Idaho



Captain Donald E. Riggle
P.O. Box 11
Port Washington, Ohio



Captain Anthony J. Rose
1316 Leland Avenue
Springfield, Illinois

"Joe"

Weight Lifting

A man who is willing to tackle any job—the more difficult the assignment the better Joe likes it. For Joe, the difficult is worthy of attention, but the impossible is intriguing.

"Jack"

Volleyball, Handball

After attending Utah State Agricultural College, Jack started his military career with the Coast Artillery in 1943. A graduate of USMA in 1946, his short tour with SAC was followed by 3 years with AFSWP prior to attending AFIT. As an eligible bachelor, Jack says, "I'm still looking".

"Rig"

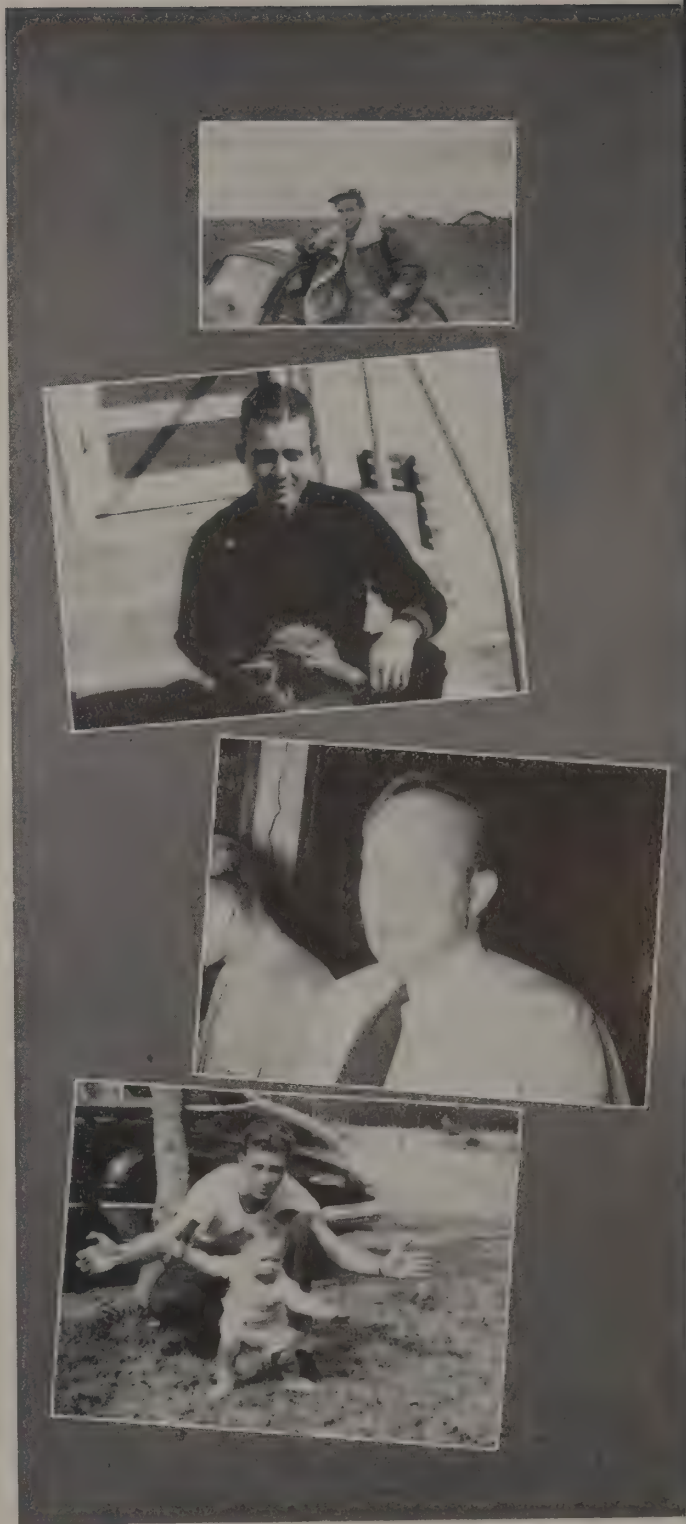
Hunting, Fishing, Hiking

Always one to find the most complicated method of solving problems, Rig astonished the instructors with his elaborate solutions. He was a good-natured, easy-going fellow, and an honor student; in fact, a curve-raiser.

"Tony"

Model Railroads, Philately

Always a good student with an abundance of curiosity, he possessed the quality of clarifying things, when they were getting cloudy, with a pertinent question. One of the section's few philatelists, Tony spent what little spare time he had on his stamp collection.





GRADUATES



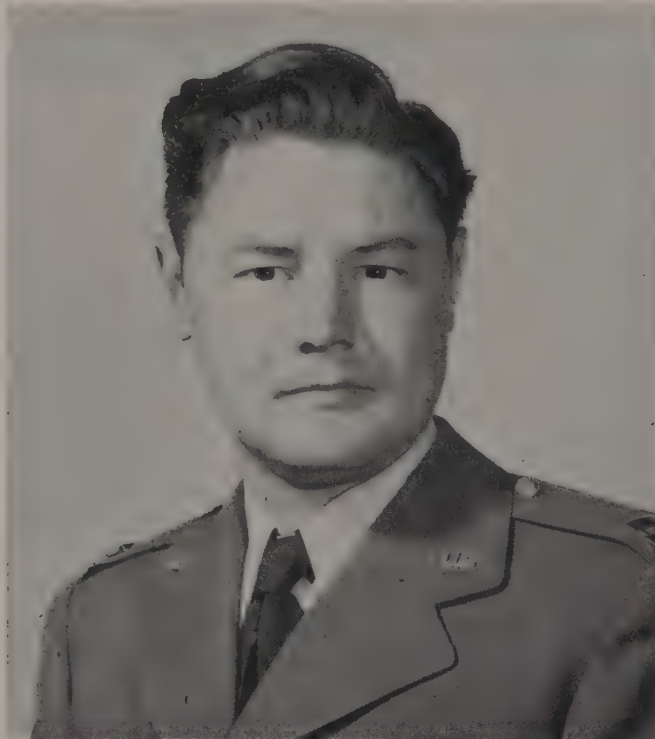
Captain Paul E. Rova
Larch Row
Wenham, Massachusetts



Captain Harold G. Russell
Altoona, Wisconsin



Captain Victor J. Sarte
420 E. Second Street
Plainfield, New Jersey



Captain Robert B. Savage
817 5th Street S.E.
Jamestown, North Dakota

"Paul"

Golf, Skiing

Paul is a quiet, slow talking lad from up Boston way. One prominent ambition is that of enjoying life, and his arm is easily twisted at the mention of golf, stag night, or a party. Once he is sure you are hazy on most any physical phenomenon, Paul can easily and smoothly explain it as attributable to either of his old friends, Archimedes or Bernoulli. A fine officer and a good guy.

"Russ"

Golf

The big guy with the cheerful disposition will be remembered for his industry. He always had time to do a good turn for someone else. Russ was an excellent student who found time to work out his Club dues on the WPAFB golf course.

"Vic"

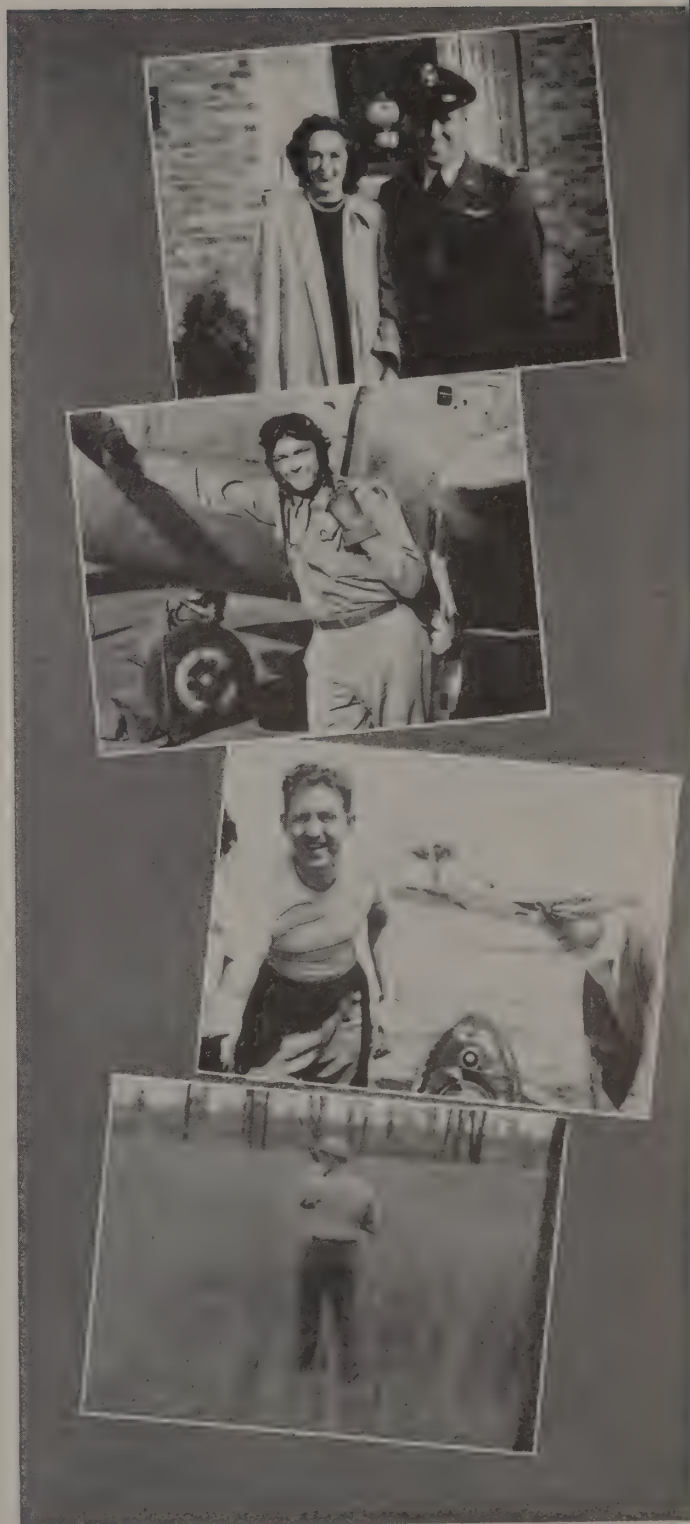
Golf, Swimming

A hard-working student, and a cooperative chap who considers the study of electronics somewhat shocking.

"Bob"

Hunting, Fishing

Bob is a hunter from 'way back, but he didn't have to hunt too hard for answers to problems. A brilliant student, coming to the Institute from OSU, he had little trouble with electrons and such. His willingness to lend a helping hand was always appreciated.





GRADUATES



Major Louis Schaffer
1334 E. Davis Street
Fort Worth, Texas



Major Orville J. Schulte
7357 Wise Avenue
Richmond Heights 17, Missouri



1st Lieutenant Fred D. Shipley
1286 Primrose Place
Columbus, Ohio



Major Clifford R. Silliman
448 Main Street
Oneonta, New York

"Lou"

Golf, Tennis, Baseball

Lou is one of those people who likes nothing better than a good laugh. No matter how dark the situation, he can find something about it to raise a chuckle. He has had his problems as Section Leader for 2ES51 with its transplanted Engineers. With his section slowly settling into a routine and the seeds of Electronics taking root, it looks as if he's got the "pitch".

"Dutch"

Softball, Bowling

Dutch, the bowler of our section, probably better known as the senior partner of Schulte & Walsh, was the only one in the class to get his problems put on the board by remote control. A good student and a solid family man.

"Ship"

Golf, Basketball

Ship was an excellent student, a hard worker, and a good father, but above all he was always willing to be one of the team. As an officer and a gentleman, he was well liked by everyone and should go far.

"Roger"

Handball, Volleyball, Hobby Shop

Hailing from up-state New York and coming to the Air Force via Tri-State, Purdue, and the Corps of Engineers, Roger is a civil engineer who has the knack of making the practical approach to any knotty problem. An athletic fan, "Rog" is always ready for a quick contest, no holds barred.

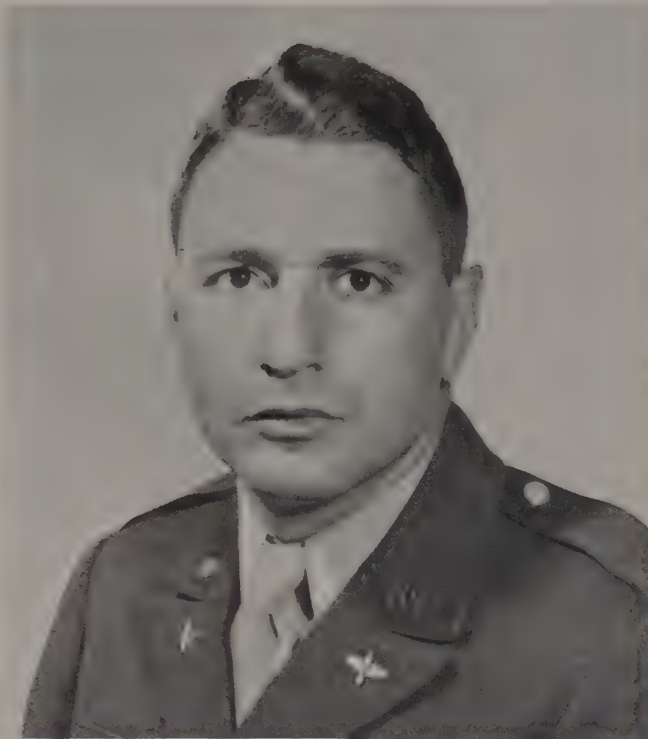




GRADUATES



1st Lieutenant Charles A. Smith
6 Rosshire Court
Pontiac, Michigan



Captain Robert E. Smith
250 Chestnut Street N.E.
Warren, Ohio



Captain Louis K. Stark
Route 5, Box 27
Port Orchard, Washington



Captain Louis F. Thumser, Jr.
194-44 115th Drive
Saint Albans, New York

"Smitty"

Baseball, Tennis

A Michigan boy who changed from baseball to airplane driving to accommodate Uncle Sugar. Easy going, quiet talking Smitty was always available for any argument. Won most of them by saying so much so quietly that he ruined the morale of the opposition.

"Smitty"

Photography, Golf

A friend of all, industrious and serious, and exceptionally eager when it came to homework, he demonstrated an ability to dig into and solve the many difficult problems which we students encountered.

"Kenn"

Photography

Kenn's favorite off-duty activity was relaxing in front of his TV set, which he claimed he purchased with the money he saved on barber bills. He had little trouble with the courses due to his previous experience as an electronics instructor at Keesler AFB.

"Red"

Photography, Handball, Woodworking

He found that homework left little time for his family and his hobbies, but he maintained his easy-going manner in spite of the pressure at AIT. Red is looking forward to the day when he can return to "active" duty.





GRADUATES



Captain Casimir J. Trzyna
5941 S. Maplewood Avenue
Chicago 29, Illinois



Captain Charles L. Tucker
Claypool, Indiana



1st Lieutenant John L. Umlauf
1244 Humboldt Street
Denver, Colorado



Captain Charles L. Walker
1161 11th Street
Boulder, Colorado

"Cass"

Hunting, Fishing

Cass, an altruist who is serious, but with the ability to relax and make friends, is one whose background will assure him of a promising future and many more friends.

"Tuck"

Swimming, Children

Tuck finds chasing electrons a change from chasing transient bubbles, but has made the switch and has hit his stride. He's mighty proud of his fine youngsters.

"Dutch"

Volleyball, Basketball, Swimming

Characteristic of his good judgment and ability, Dutch transformed from a former "gob" and midshipman in the Navy to a top notch Air Force officer. A graduate of USMA, he transitioned in B-25's, served in SAC, and prior to AIT had been an instructor at AFSWP school since January 1947.

"Chuck"

Photography, Golf

Chuck, a veteran officer of Wright-Patterson, was probably best known as a raconteur extraordinaire. He had a story to fit every occasion, and his cosmopolitan background made him at ease in any crowd. He worked hard at his studies and his golf.





GRADUATES



1st Lieutenant John P. Walsh
331 E. 81st Street
New York, New York



Captain Harry E. Walmer
158 S. 2nd Street
Steelton, Pennsylvania



1st Lieutenant Robert M. Webster, Jr.



Captain Gerald H. White, Jr.
20 N. Grove Street
Valley Stream, New York

"John"

Golf, Swimming

His argumentative nature diverted the attention of the profs, keeping the heat off the rest of us. "The Kid" with the moustache was the junior partner of Schulte & Walsh, mechanics wizards extraordinary.

"Harry"

Golf, Tennis

Here is an unassuming scholastic leader who is always willing to assist others. Although he is very conscientious about his work, Harry will be remembered for his ready sense of humor and his ability to raise the morale of others when the going became rough.

"Bob"

Volleyball, Golf

Genial Bob has added joy to our sojourn at the Institute. His friendliness and amiability have made him well liked by all who know him. One of the BOQ boys, he is aptly described as "Wright's Most Eligible Bachelor". His interest in athletics, particularly golf, has led to many an enjoyable and profitable afternoon for his golfing companions.

"Jerry"

Photography

The only bachelor in 1ES51, he has that "shy" technique with the women. An honor student with previous experience as an electronics instructor at Keesler AFB, and coming to the Institute from Purdue, Jerry had little trouble with the elusive electron.





GRADUATES



Captain Victor M. White
Route #1
Covan, Washington



Captain Miles C. Wiley, Jr.
P.O. Box 155
Oxford, Georgia



Major Isaac O. Winfree
200 Tex Street
Leesville, Pennsylvania



1st Lieutenant Lawrence C. Wright
31 Parnell Avenue
Dayton, Ohio

"Vic"

Bowling, Reading, Shop Work

Vic, an honor student, and 1ES51's embryonic Einstein, was quiet and unassuming. We didn't hear much from him, but he was always there to clarify the situation with his pertinent contributions.

"Wiley"

Flying

Wiley will be remembered for his serious attitude combined with a good sense of humor which is capable of seeing the brighter side of things. A love for all phases of flying and a devotion to family and home are prominent.

"Ike"

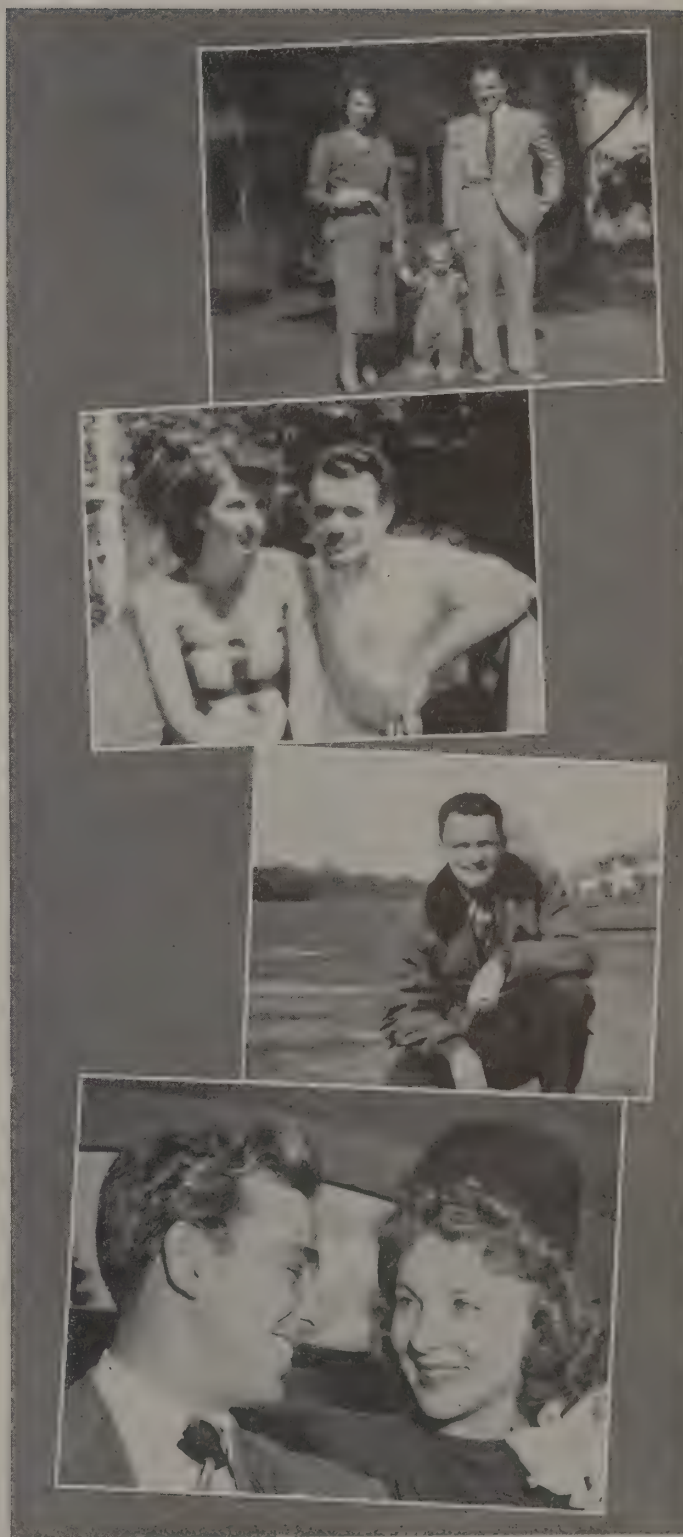
Volleyball, Swimming

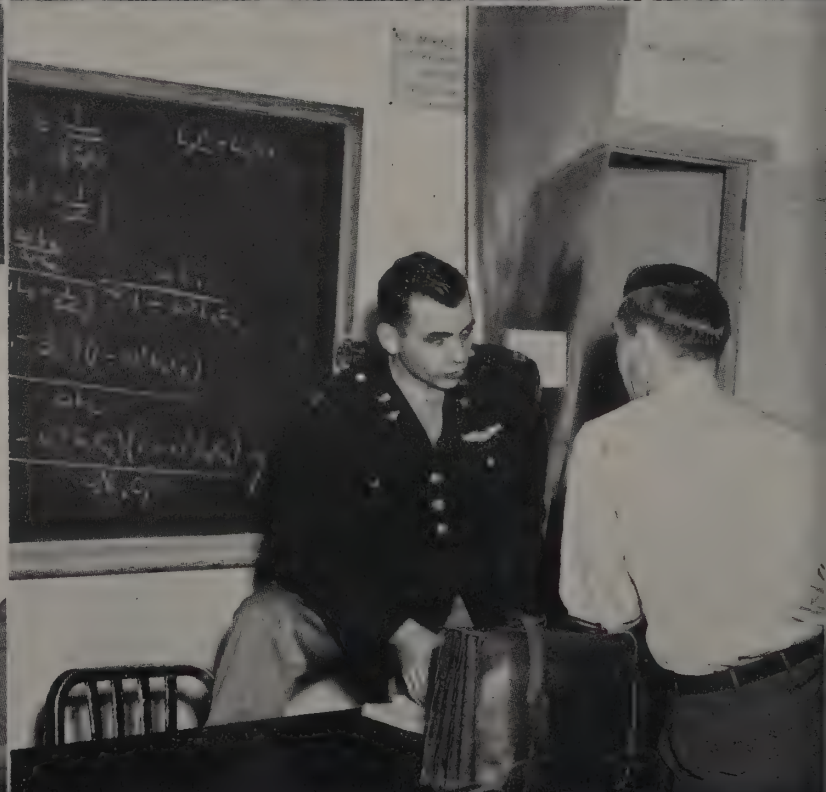
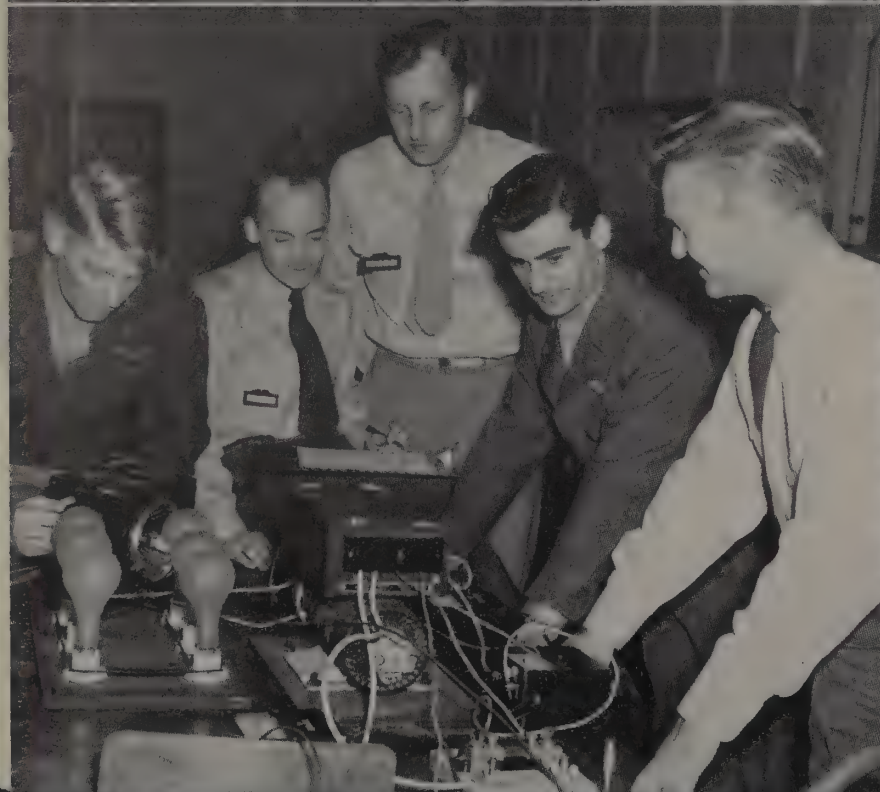
After receiving his commission in 1941, Ike served two years in the cavalry. He took pilot training in 1943 and flew 62 missions with the 9th AF in the ETO. Since the war he has attended the Armored School, Air Tac School, and the Air Command and Staff School.

"Chet"

Homework, Golf, Bowling

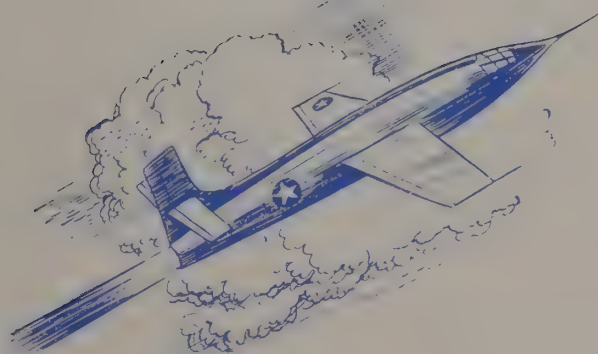
The only man in the class who was always Wright! Chet, a good, solid, average student by his own admission, will best be remembered for his pleasant and ever-present smile. Chet's assignment to AIT was a home-coming as he is a native of Dayton.





THE Civilian Institutions Division of the Institute carries on one of the major functions of the Air Force's educational program. The Division is charged with the administration and supervision of 1090 student officers who are assigned to 81 Colleges and Universities, 84 hospitals and 11 industries, for graduate, undergraduate and industrial training. Officers are carefully screened and selected so that specific Air Force requirements in the many special and technical fields may be met.

One of the activities of the Institute is the monitoring of the Graduate Training Center located at Wright-Patterson AFB. Ohio State University, under government contract, conducts this graduate training, on the base, for both military and civilian personnel. The Installations Engineering Staff School is also conducted by the Institute to provide special training to meet the needs of the Air Force.



STAFF

ENGINEERING SCIENCES



SECTION E52

FIRST ROW, left to right: Capt. Leonard Volet, Capt. William K. Hoey, Capt. Jack E. Foster, Lt. Col. Robert A. Barrere, Capt. James E. Miller, Major Augustus F. Williams, Jr.

SECOND ROW: Capt. James W. Tisdale, Jr., Capt. John J. Gallagher, Capt. Eldredge Estes, Major Henry H. Sherborne, Major Herbert E. Wunderlich, Capt. James E. Smith.

THIRD ROW: Capt. Lauritz S. Larsen, Capt. Edward J. Stenger, Capt. Relf A. Fenley, Capt. Russell B. Kraus, Major Paul L. Fishburne, Major Eugene Allison.

FOURTH ROW: Sqdn. Ldr. Philip D. Markham, Capt. Raymond J. Bathurst, Capt. John H. Blakelock, Capt. Ivan H. Dethman.

FIFTH ROW: Capt. Harold W. Christian, Flt. Lt. Edward E. McCullough, Flt. Lt. A. S. Knowles, Capt. J. W. Wallace.

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Chief

LT. COLONEL W. R. MIDDLETON

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SECOND ROW: Miss Betty J. Weisbrod, Major R. G. Stutzman, Mrs. Pauly Larsen, Sgt. Bruce M. Swink.

BACK ROW: P.F.C. Gene Rutledge, Lt. H. M. Brantley, Captain R. D. Crane, Lt. Col. W. R. Middleton, Lt. Charles E. Fulbeck, and Mr. Robert P. Mast.

ADMISSIONS DIVISION



Dean
GLENN O. EMICK

FRONT ROW: Mrs. Clara Witlicki, Capt. Vincent Walsh, Capt. Frances M. Ellison.

SECOND ROW: Sgt. John P. Crider, Mrs. Julia Davis, Capt. Donald R. Greenisen, Mrs. Viola Killian.

BACK ROW: Mrs. Jane Huggins, Dr. Glenn O. Emick, Mrs. Lois Stout, Lt. Colonel Julien M. Burkness.

ADMINISTRATION DIVISION



Chief

MAJOR WILLIAM L. TUDOR

FIRST ROW: Capt. Jacqueline B. Walther, Major William L. Tudor, Capt. Simeon Miller, Sgt. Richard A. Lane, S/Sgt. W. P. Ciaverelli, Sgt. Roy Mayberry, Sgt. Edward J. Alcorn, Sgt. Mark Barnette, Sgt. Emil McNelly and M/Sgt. Carmine Cestaro.

SECOND ROW: Cpl. E. A. Kilby, S/Sgt. E. Lorant, Sarah Bruggeman, Ruth McBride, Roy O. Roberts, Paul J. Thies, M/Sgt. Rufus E. Chadwick, M/Sgt. Arthur Coburn, M/Sgt. Robert J. Bayham, Sgt. T. E. Shotts, and T/Sgt. Joseph S. Suhy.

THIRD ROW: Paul Keller, Juanita Randall, Delores Allen, Agnes Gaither, Lynn Hamilton, T/Sgt. James M. Hay, M/Sgt. James C. Hooks, Lt. Colonel Florence Rowand and Captain Clyde F. Long.

FOURTH ROW: John Krumm, Belva Griffey, Pearl Walker, Laura Cordell, William M. Phillips, Millard

Wolfe, Pfc. Herman Teicher, M/Sgt. Norman McDonald, and W/O William R. Dieckhoff.

FIFTH ROW: Captain Joseph S. Laboda, Norma Price, Nancy Harris, Elizabeth Drake, June Blanton, Faye Nezon, Pfc. Lloyd Stith, Sgt. Gerald W. Sullivan and Sgt. John C. White.

SIXTH ROW: Thomas Krug, Gloria Roberts, Mary Ann Gordon, Rosemary Borgert, Geneva Mallett, Eve L. Darrow, S/Sgt. George Weber, Pfc. Robert Pulsipher and Captain Edward W. Guthrie.

SEVENTH ROW: Phyllis Samples, Eleanor Hartranft, S/Sgt. Leroy McDowell, Pfc. Ray G. Grimes, and Major Byron R. Fowell.

EIGHTH ROW: Marian Crawford, Henrietta Lockhart, Helen Tattershall, Clarence E. Taylor, Agnes C. Rooney, Major Louis B. Klam, Pfc. J. L. Feathers, Captain Claude R. Nelson and T/Sgt. Willis B. Burris.

INSTALLATIONS ENGINEERING SPECIAL STAFF SCHOOL



Chief

COL. A. M. MUSGROVE

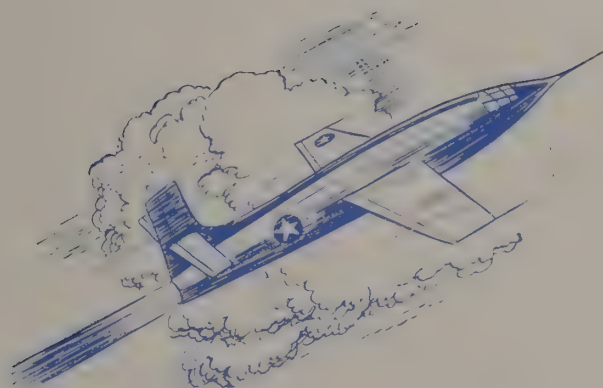
Capt. L. J. Hoscheid, Major J. W. Whitsett, Major S. H. Lowry, Major F. A. Sanders.

Major L. F. Williams, Lt. Col. R. E. Gates, Col. A. M. Musgrove, Lt. Col. R. L. Clifford, Major W. L. Beadle.

BETWEEN the first and second years, the students were provided with a diversion from the grind of long and tedious hours of study. The diversion was in the form of a program comprised of lectures and special demonstrations by top military and civilian personnel and their staffs. The program provided the students with a review and analysis of Air Force and Air Materiel Command organization and projects.

These projects related to the latest developments in scientific, technological and management fields as exemplified by Air Force operations in Air Materiel Command laboratories, the Proving Ground Command, flight test stations, Air Material Areas, and in selected aeronautical and allied industries.

The students spent many hours in observing laboratory demonstrations and visiting and studying the organization and operation of a typical Air Material Area and industrial plants.

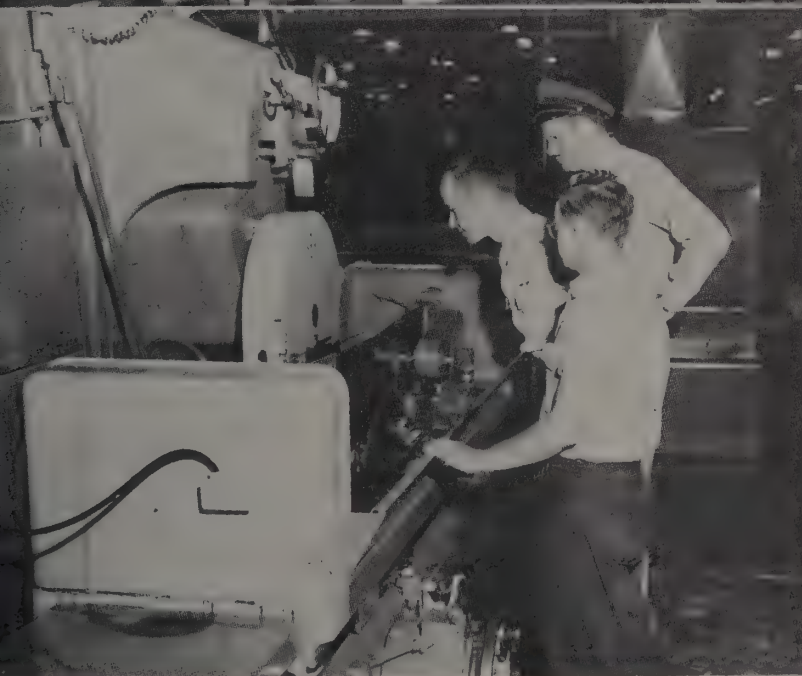
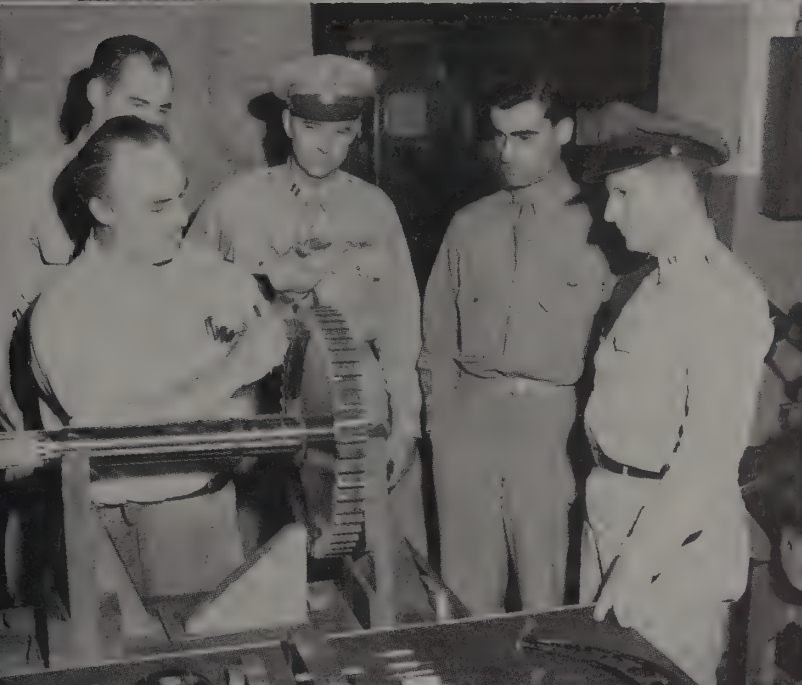


SUMMER PROGRAM



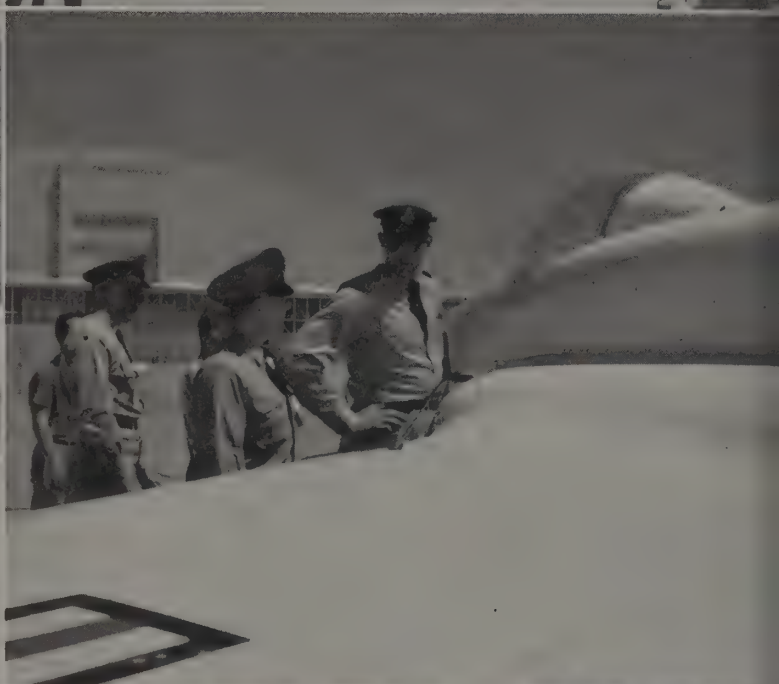
McClellan Air Force Base, Sacramento, Calif.
Welcoming address
Instrument Repair Section
Instrument Repair Section

McClellan AFB Instrument Repair Section
NACA Ames Laboratories, Moffet Field, Calif.
Yaw and pitch servo-indicators
Airfoil and wing design



NACA Ames Laboratories, Moffet Field, Calif.
Allison Engine Division of General Motors,
Indianapolis, Ind.
Turbine shaft inspection
Grinding turbine blade base

RKO Studios, Hollywood, Calif.
Scale models
Production scheduling
Continuity sketches



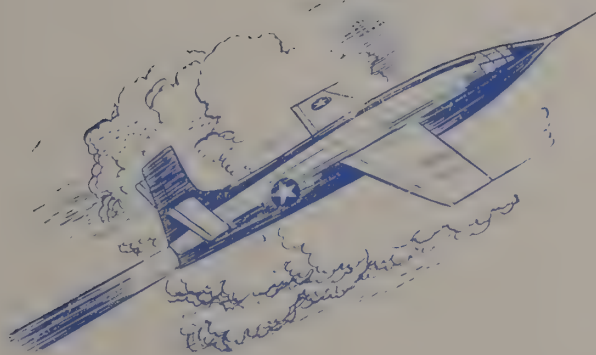
EDWARDS AIR FORCE BASE
Muroc, California

THE program of learning at the Institute did not neglect the fact that "all work and no play makes Jack a dull individual". There was the three hour per week requirement for participation of all students in some form of athletic endeavor. Intramural sports in basketball, volleyball, bowling, tennis, golf, handball and softball were provided, in season, for the section teams. Much rivalry and enjoyment was promoted by these activities which contributed to the pleasure of the students. Trophies were awarded for team and individual sports.

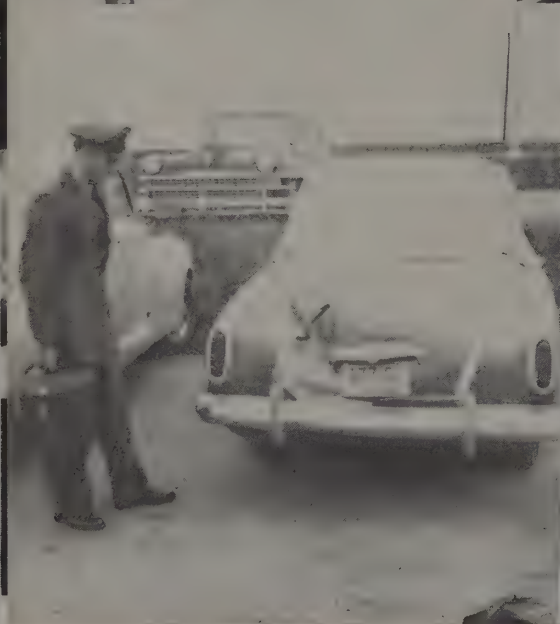
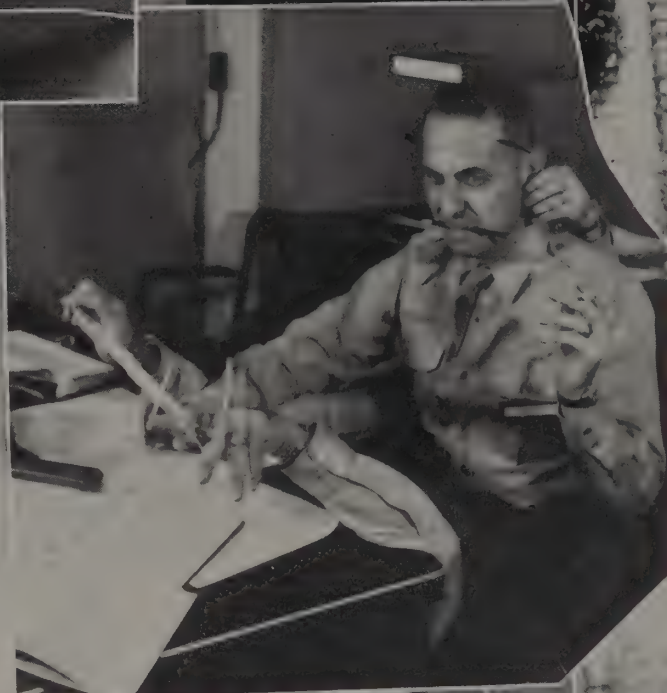
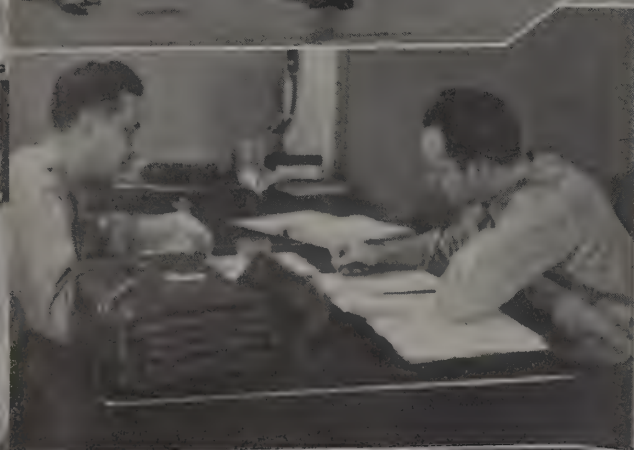
In addition to the sports program, the students enjoyed the periodic dances, held at the Wright-Patterson Officers' Club. These affairs were one of the bright spots on the students' calendar.

During the academic year lectures by authorities of world wide acclaim in several fields were provided for the students which aided in the broadening of their background on technical and world affairs.

In addition to the scheduled activities, there developed an esprit de corps in each section, whereby many hours of enjoyment were obtained through association with fellow classmates. These days may be past but will never be forgotten.



ACTIVITIES



SECTION 1L51



SECTION 3L51



SECTION LP51



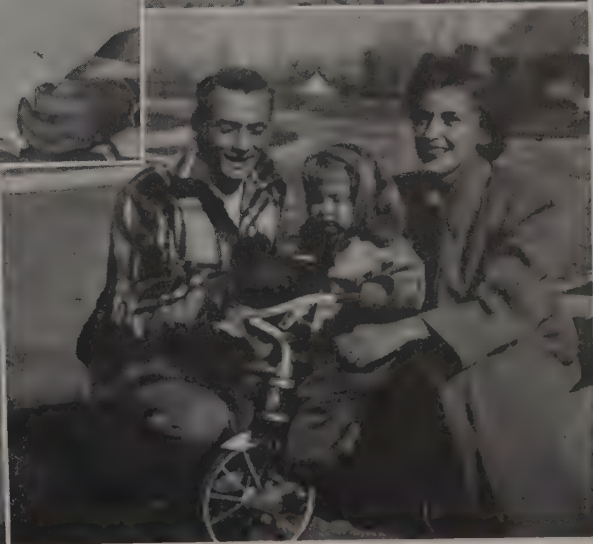
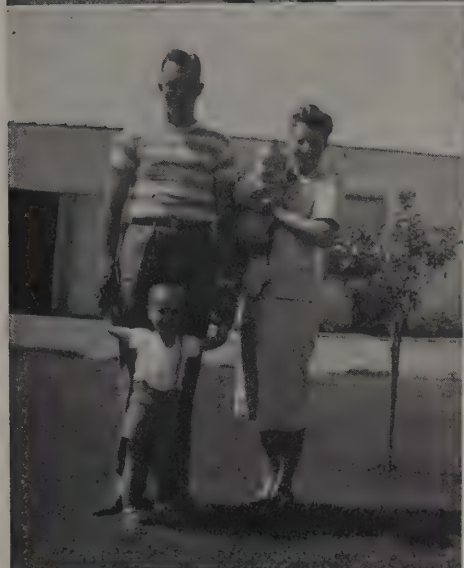
SECTION 1E51



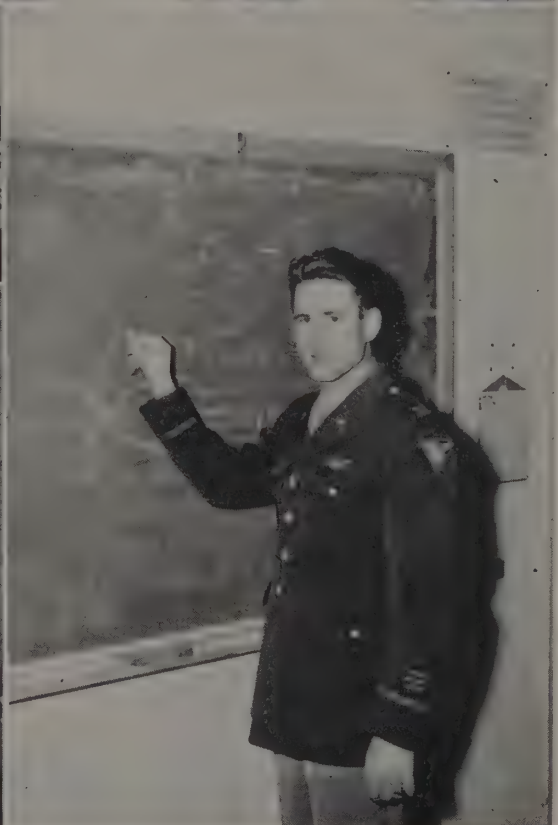
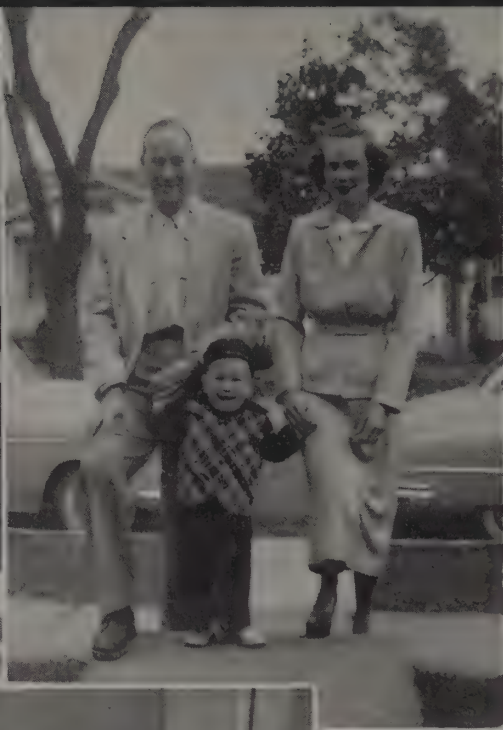
SECTION 2E51



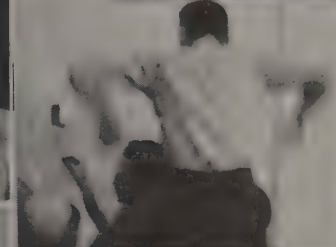
SECTION 3E51



SECTION 1ES51



SECTION 2ES51



SECTION EP5I



SECTION E52

THE STUDENT COUNCIL



Major Hagen, Lt. Bissell, Lt. Webster, Capt. Anderson, Capt. Gallagher, Lt. Lamprecht, Capt. Crutcher.
Major West, Major Dunn, Colonel Barrere, Major Peterson, Capt. Penick, Capt. Creighton.

INSTITUTE OF AERONAUTICAL SCIENCE *Student Chapter*



Major E. A. Blue, Chairman
Capt. H. F. Wienberg, Secretary

Dr. G. R. Graetzer, Honorary Chairman
Capt. M. Farnum, Jr., Treasurer
Major R. W. West, Vice-Chairman

INDUSTRIAL ADMINISTRATION

*Honor Students**



FIRST ROW: Capt. J. A. Bailey, Maj. A. L. Biberstein, Lt. B. B. Biggs, Sqdn. Ldr. G. L. Burness, Lt. Col. R. E. Cathcart, Capt. R. H. Dearey.

SECOND ROW: Maj. L. F. Deegan, Capt. Mark Farnum, Capt. J. R. Fowler, Capt. J. W. Gilluly, Maj. J. C. Holbrook, Lt. K. L. Jackson.

THIRD ROW: Lt. R. T. Jackson, Maj. P. C. Murphy, Capt. E. L. McCabe, Capt. F. C. Newton, Maj. R. F. Pike, Maj. J. S. Ross.

FOURTH ROW: Capt. Ned Schramm, Capt. H. A. Waggoner, Capt. L. M. N. Wenzel, Capt. H. F. Wienberg.

* (Computed 1 Jan. 51 for two year students only)

ENGINEERING SCIENCES

*Honor Students**



FIRST ROW: Capt. J. J. Anderson, Lt. E. E. Baker, Lt. W. D. Baxter, Lt. R. S. Buchanan, Lt. H. H. Howell

SECOND ROW: Capt. O. L. Koontz, Lt. Richard Lamprecht, Maj. W. E. Little, Lt. W. S. Moe, Capt. E. S. Penick.

THIRD ROW: Lt. F. H. Perkins, Maj. L. L. Peterson, Lt. D. E. Quail, Capt. G. J. Schaffer, Lt. V. H. Shepard.

* (Computed 1 Jan. 51 for two year students only)



Recreation and Relaxation

THE INTEGRATOR STAFF



FIRST ROW:
 JACKSON.... Ass't. Business
 BLATT..... Business
 SMITH..... Photography
 PENICK... Ass't. Photography

SECOND ROW:
 GILLULY..... Editor
 BIBERSTEIN... Editor-in-chief
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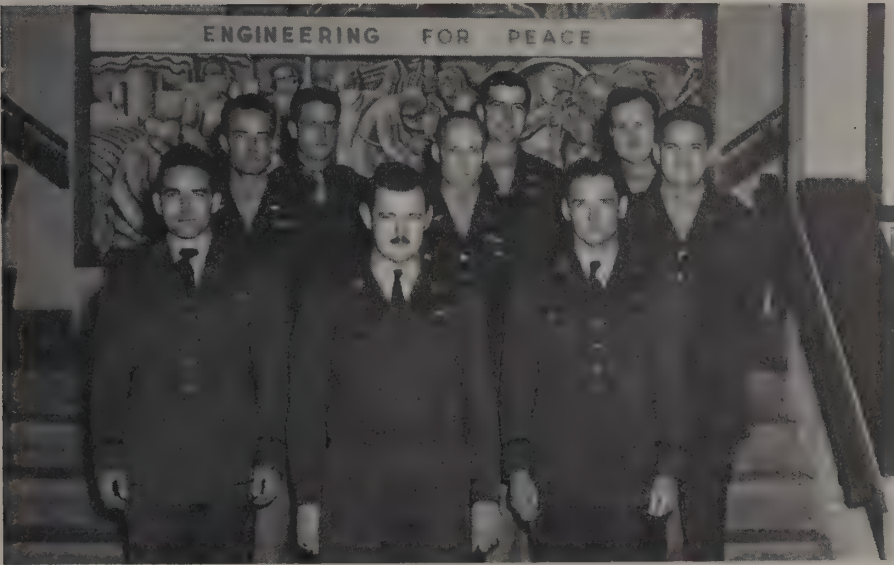


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ACKNOWLEDGEMENT

On behalf of the graduates for whom this volume is published, the Editor-in-Chief wishes to acknowledge gratefully the cooperation of those people who contributed so much in time, skill and energy to the production of the 1951 Integrator. A special thank you is expressed to the following:

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Limited space prevents naming everyone to whom we are indebted. We are grateful for the essential services performed by the many others.

ARTHUR L. BIBERSTEIN
MAJOR, U.S.A.F.
EDITOR-IN-CHIEF

TO INDUSTRY

In Peace and in War American Industry has been a cardinal influence in promoting and preserving the Republic—in Peace, the source of a progressive standard of living for a free world; in War, the sinew of a major effort to preserve the world free.

We salute the men and women whose brilliant imagination, initiative, ingenuity and fidelity have made American Industry the greatest and finest technico-mechanical aggregation on the earth.

Now, in the face of rampant aggression, the free peoples of the world, ever hopeful for Peace, are driven to taking up arms for War; and all look to Industry for the needed goods and services. We here reaffirm with pride our confidence in our Industry's ability and determination to deliver the tremendous product.

To those representatives of Industry whose names appear on succeeding pages . . . our sincere appreciation for their assistance and cooperation in the production of this book.

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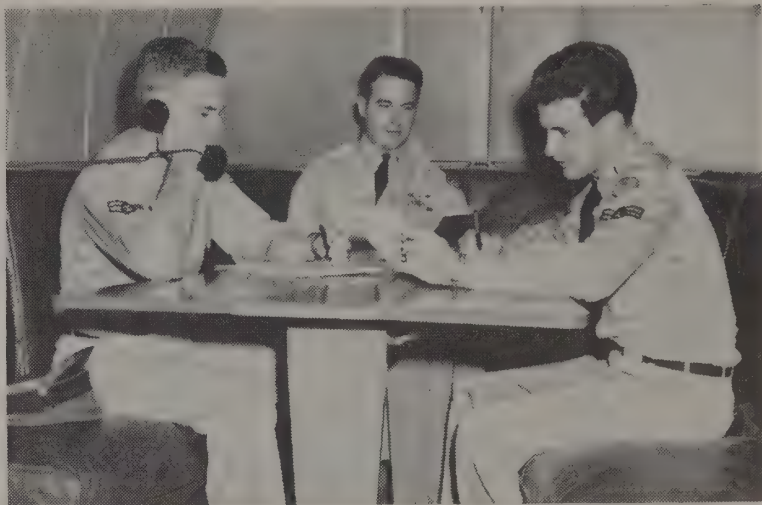
The "Big Hurry!"



It's a flying "gas station"! With Boeing-designed boom, KC-97 refuels a Boeing B-50 Superfortress bomber in midair.



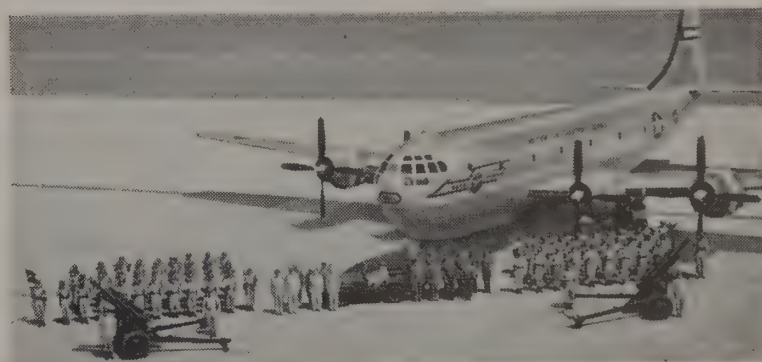
...and a hospital ship! Shown unloading wounded here, a MATS operated Stratofreighter can carry up to 107 casualties.



...and a flying command post! Stratofreighter serves as highly mobile, self-contained headquarters for Strategic Air Command.



...and a heavy cargo carrier! Stratofreighter can be loaded with 34 tons of freight from four trucks simultaneously.



...and a fast troop carrier! C-97 can transport 131 fully equipped combat troops with weapons anywhere they're needed.

For the U. S. Air Force, the C-97 Boeing Stratofreighter carries almost anything, anywhere—fast!

This 14,000-horsepower teammate of the B-50, with twice the volume of a railroad boxcar, is fast, powerful, versatile. It set records for capacity and utility on the Berlin airlift. It is setting new speed and performance records over the Pacific in hospital ship duty and in transporting personnel and equipment. And now a new role—as flying tanker for

aerial refueling of combat bombers—is revealed in the KC-97 version of the Stratofreighter. Conversion from tanker to transport—or the reverse—can be made in less than 24 hours.

With all three of its spacious cargo holds completely air and altitude conditioned, there is scarcely a limit to what the 375-mile-an-hour, twin-deck Strato-

freighter can carry. And it can be loaded and unloaded quickly by virtue of self-contained ramps and hoists and specially designed cargo doors.

Designed by Boeing in co-operation with the Air Force, new-type C-97 Stratofreighters are now in quantity production. They will prove of inestimable value in America's defense program.

For the Air Force, Boeing builds the B-50 Superfortresses, B-47 Stratojets and C-97 Stratofreighters; and for the world's leading airlines Boeing has built fleets of the new twin-deck Stratocruisers.

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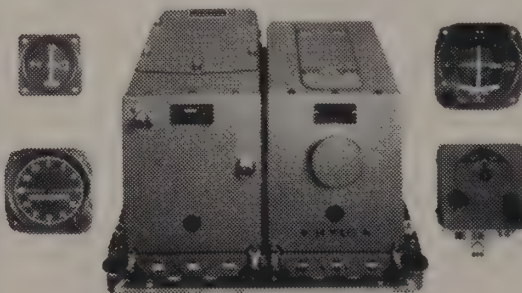
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AIRCRAFT RADIO CORPORATION**VHF**

**NAVIGATIONAL
RECEIVERS
and
TEST
EQUIPMENT**

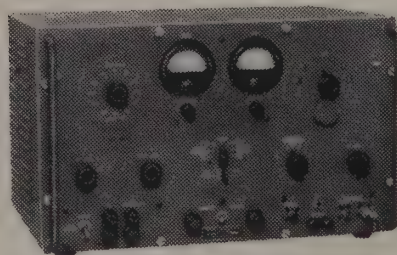
In addition to the above equipment, ARC manufactures, as stock items, a complete line of light-weight, 2-way VHF and Low Frequency navigation receivers for use in small aircraft such as Army H-13 Helicopters; L-15, L-17 and L-19 Liaison Aircraft.

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VHF navigational equipment for receiving OMNI, VAR, and both types of localizers.



TYPE H-14

(108-118mc)

Signal generator for bench and ramp testing of VHF Navigation receivers.

WRITE FOR SPECIFICATIONS AND DETAILS

Aircraft Radio Corporation

Boonton, New Jersey





Allison Powers FIRST FLIGHT of First Turbo-Prop Transport

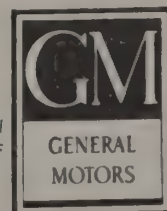
THE first U.S. turbine transport is now a reality and is under test. It was made possible through the private enterprise and initiative of the Allison Division of General Motors. First flight was completed December 29, 1950 with an Allison-owned Convair Turbo-Liner equipped with two Allison "501" Turbo-Prop engines.

This investment in the future of Turbo-Prop power is the result of Allison determination to speed the development of turbine transports in this country. The Allison "501" Turbo-Prop engines, developed under sponsorship of the U.S. Navy, are the most advanced Turbo-Prop engines in the U.S. today. They lead the world in high power for their low weight. They will make possible smoother, more economical transports to carry increased loads of passengers and freight.

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Thus the United States will continue its world leadership in transport aircraft.

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OF



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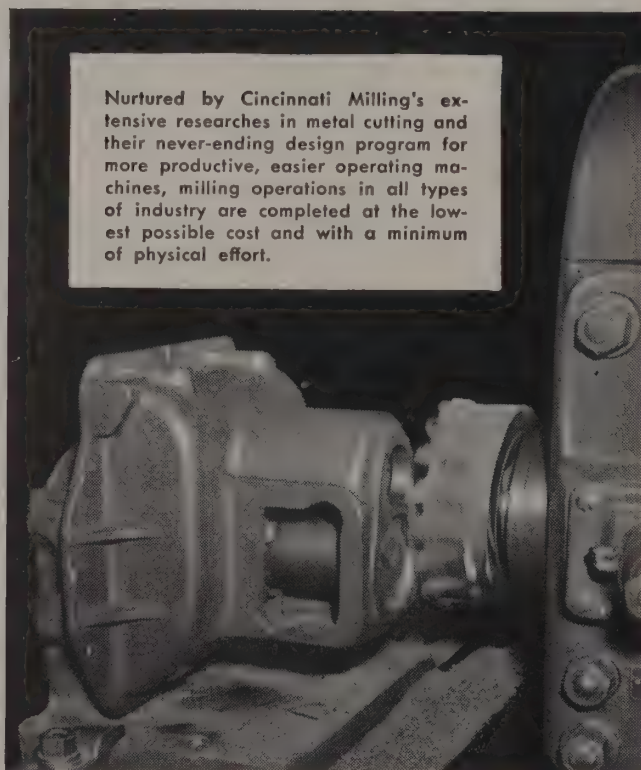
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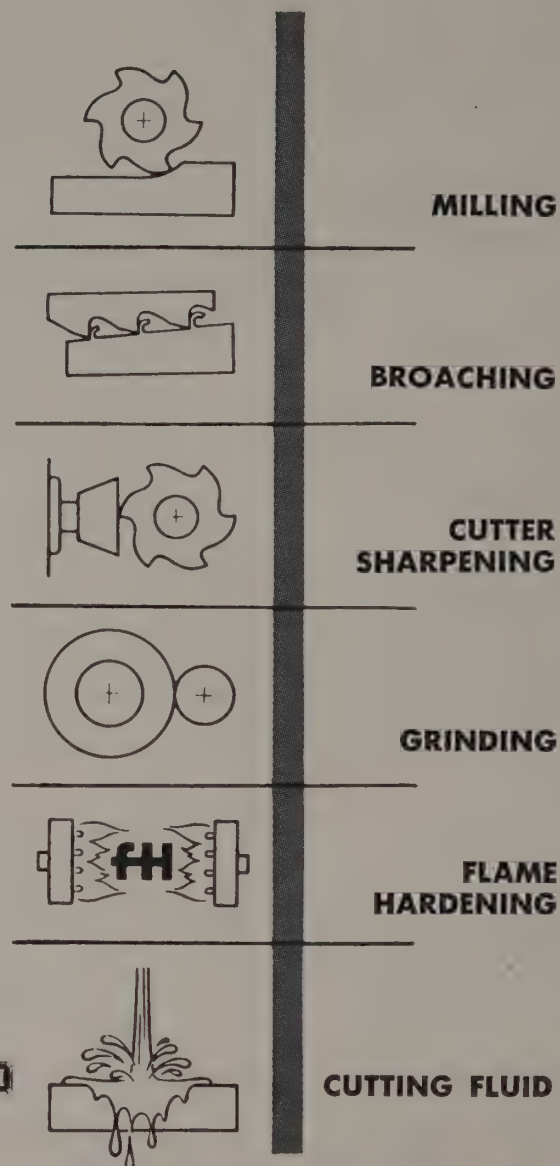
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...in the metal working field during the past 66 years have been helped "over the hump" by machine tools built by The Cincinnati Milling Machine Co. and Cincinnati Grinders Incorporated. From the modest beginning of a milling machine built for their own use back in 1884, products of service to all types of industry now include Flamatic Hardening Machines, Cimcool cutting fluid, and metal cutting machines in the fields of milling, die sinking, broaching, cutter sharpening, optical projection profile grinding, centertype grinding, centerless grinding, and centerless lapping, illustrated diagrammatically at the right. ¶ When you encounter machining problems of this type it will pay you to come to Cincinnati Milling first. General catalog No. M-1684 gives you an idea of the complete Cincinnati line.

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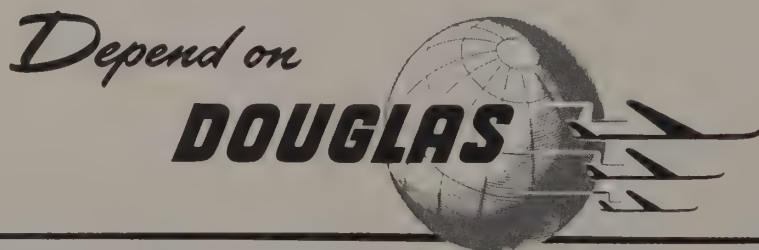
Fairchild-NEPA Div., Oak Ridge, Tenn. • Fairchild Engine, Guided Missiles, Al-Fin and Stratos Divisions, Farmingdale, N.Y.



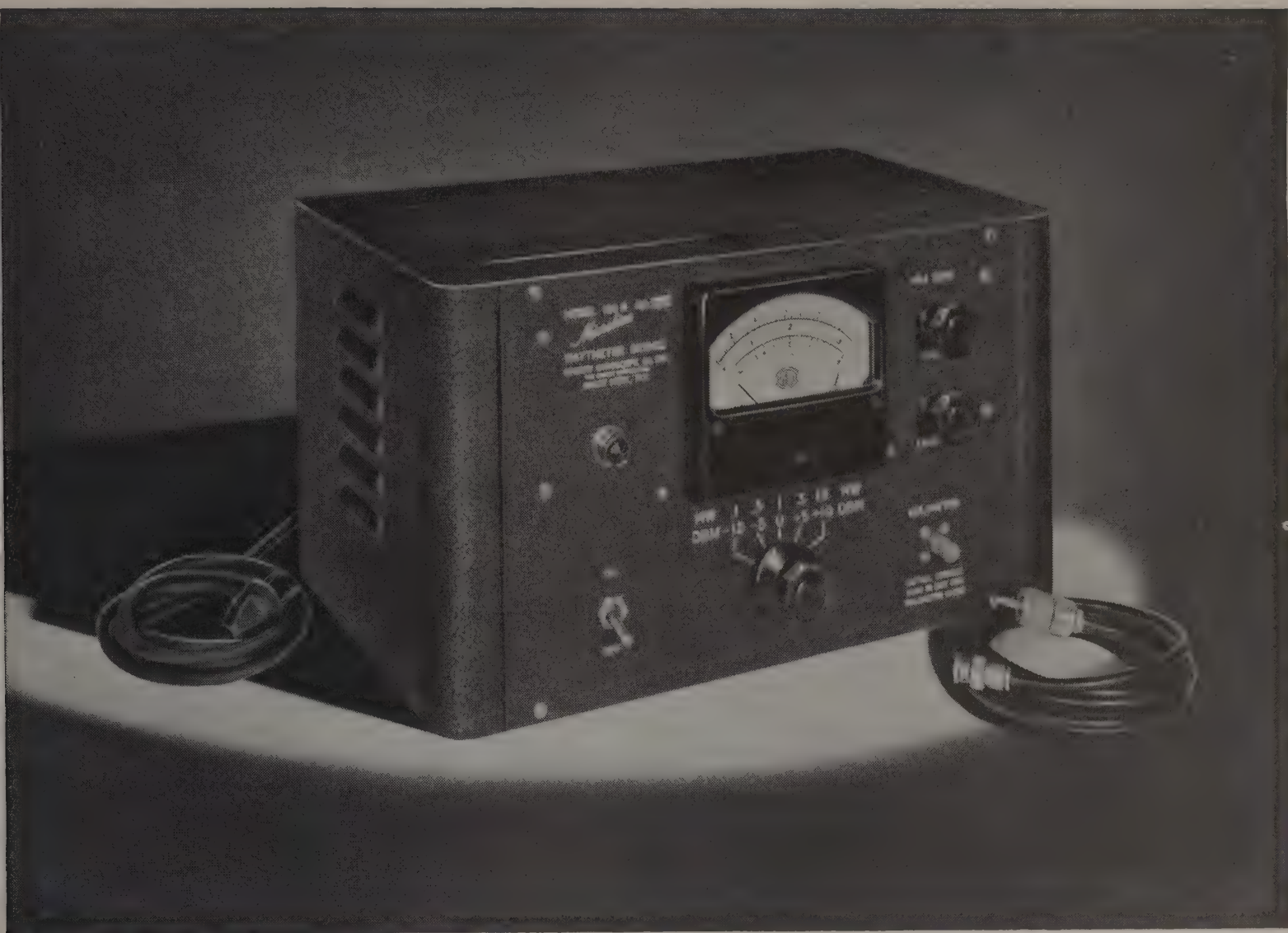
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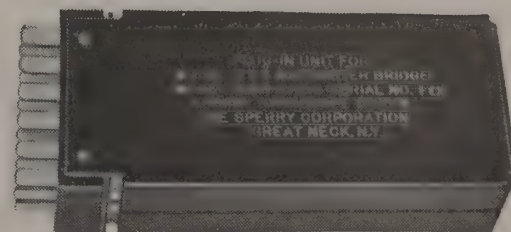
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► With accuracy to which power dissipated in the bolometer element can be measured to $\pm 3\%$ of the full scale reading, this meter is capable of operation with either thermistor or barretter. This is possible by the selection of the proper plug-in unit (listed in table at right).

► Model 123B is calibrated in both milliwatts and DBM. Five power ranges are available 0-0.1, 0.3, 1.0, 3.0 and 10.0 milliwatts. Pulse power, as well as c-w power, can be measured with this bridge and appropriate bolometers.

► Write our Special Electronics Department for further details.



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200T for 200 ohm thermistor operation

135T for 135 ohm thermistor operation

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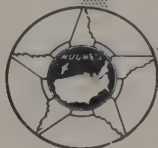
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on the drawing boards
of the men at Aeroproducts.*



Aeroproducts Propeller installed on Allison T-40 Turboprop

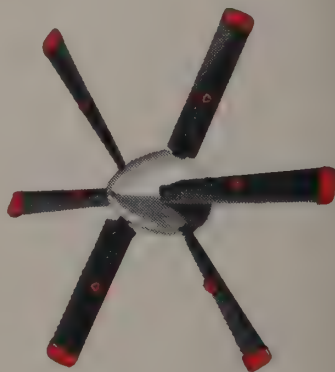
Aeroproducts, working in close contact with the Navy and Air Force, has pioneered propeller design for turboprop power . . . has, by its research and never-ending experimental work, blazed the trail of propeller driven supersonic speed for all others to follow.



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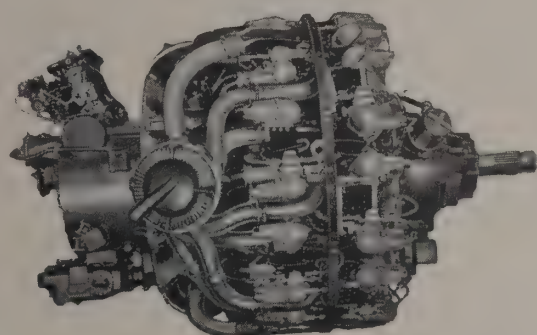
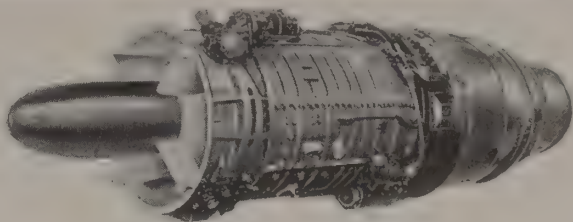


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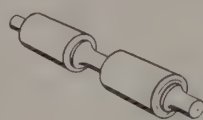
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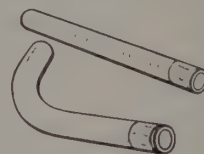
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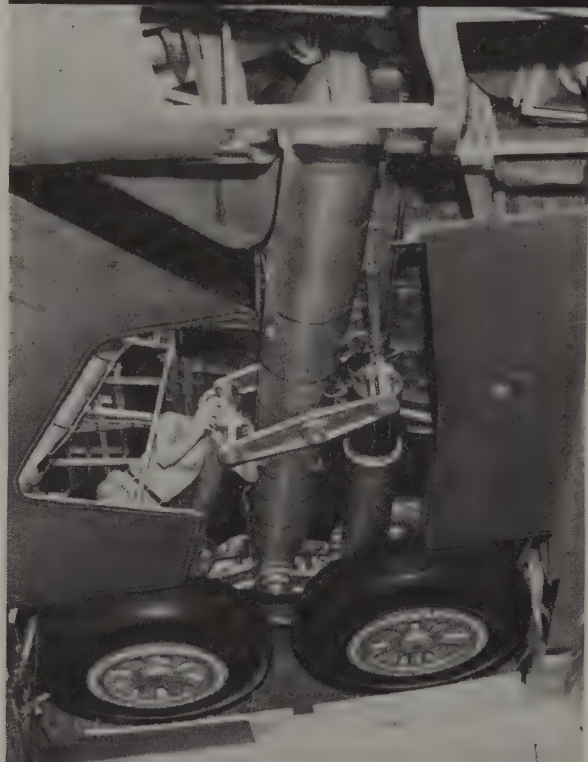
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Mercy HAS ROTARY WINGS

● SOUTH KOREA: UN wounded are loaded on a Bell H-13D helicopter near Mun-mang-ni for evacuation to a rear hospital. (Acme Photo)



● The helicopter has "come into its own" in Korea. Only the most glowing reports of achievements have been attributed to military helicopters and their crews. One of the most commendable "mercy mission" performances won the Distinguished Flying Cross for the U. S. Army's Second Helicopter Detachment on January 14, 1951. ● The award was made in recognition of the successful evacuation of 23 wounded men

from the battlefield to a hospital 25 miles in the rear. Using four Bell H-13D helicopters, U. S. Army pilots completed the assignment in 2½ hours. One helicopter suffered 18 bullet holes during its flights. ● In addition to the Army's H-13D, Bell HTL-4s are also serving in Korea. One Marine helicopter pilot made the most of his HTL-4 by evacuating four wounded (two in the cockpit and one each in litters) on one trip.

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